MACDONALD COLLEGE JOURNAL

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No. 9

MAY
1948

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THE MACDONALD COLLEGE JOURNAL

Helping Ourselves to Vital Information

"Farm parents want their children to be trained so they will have a balanced life, be able to make a good living, serve their community and work for a common cause rather than for personal gain alone." This is not a quotation from a campaign speech, nor from a book on sociology. It comes from a report presented by a committee of farm men and women in Iowa to the Agricultural Extension Service of that state.

It is not Canadian—but it could be. Here in Canada, too, farmers' thinking refuses to limit itself to the business side of life. Farmers want a decent income, yes; but they are also thinking of the other things involved in better living.

However, the Iowa people are ahead of us in organizing to satisfy their demands. They have an advisory committee of nine men and nine women who help the state extension service guide its program. While we may mutter because government services do not provide us with all the information we need, or any information along some lines, they get together to decide what they want, and then ask to be supplied with it.

Their demands cover quite a range. For example, this year they asked for more information about housing . . . how costs could be cut, how new materials could be used, how farmhouses could be better planned, how financial help for building could be secured. They considered housing such a critical matter that they thought this information should be obtained by the government, and supplied to the public.

They asked, too, that youth be given more opportunity for personal development through training in music, nature study and social programs, as well as in vocational projects. They wanted a chance for their boys and girls to develop all their creative talents.

They sought more facts on cost, maintenance and financing of schools and roads. They wanted more publications about economics, political science and world affairs; and they asked to be supplied with speakers qualified on a wider range of subjects, for rural meetings.

On the strictly practical side of farming the advisory committee thought wise land use was the most important subject for extension education. It emphasized need for information on pasture improvement and the utilization of pastures and roughage to lower feed costs. It also asked for a program that would help to develop marketing facilities, and improve the quality of production by expanding graded marketing of grains, livestock, poultry and produce.

These and other recommendations from the advisory committee will be considered by Iowa extension service officials in drawing up future programs. The state has already won far-spread recognition for the effectiveness of its extension, which is no doubt due in large part to the fact that it finds out what people want, and then tries to supply it. In that effort it has built up a competent staff of extension experts, and organized and equipped them so that they can do an effective job.

Canada could certainly use a mechanism such as an advisory committee on extension service in each province. We have a good nucleus from which to develop farmers' advisory councils in the provincial farm forum organizations. The forums have already probed extension work in this country, and found it lacking. If they are willing to do something concrete to help to improve it, undoubtedly the provincial departments of agriculture would be glad to consider their suggestions. These would be made through channels similar to those that have been effective in Iowa.

Our Cover Picture

Suzanne Cloutier and Doris Brunette start the gardening season at the Central Experimental Farm at Ottawa. Photo by the National Film Board.

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New Competition in Farming

The development of new techniques in marketing has changed the farm picture. Now the competition is not so much between the crops produced as between the possible methods of disposal. Milk, for example, may be produced for sale as fluid milk, butter or cheese. And a small change in the price relationship may upset the whole structure of the industry.

by J. E. Lattimer

FORWARD price agreements or contract prices between buyers and sellers are no new procedure in business. Such agreements have prevailed for some time in special lines such as canning crops and fluid milk. But their application to grains and livestock is a recent development and alters the form of competition to that between alternative opportunities. Where prices are agreed on for some future period the alternative open to the producer is to change the volume provided.

It is rather hard to keep farming in balance when prices have free play. One of the functions of price is to provide the required amount of different products. When prices are regulated the problem is to find what price will bring forth the required supply.

International trade in farm products enables different countries to specialize in the crops most adaptable to their conditions. Specialization in farming also tends to increase within countries. Yet there are some alternatives usually open to producers in any one area. Where only prices are regulated, and producing a certain product is voluntary, the switch to alternatives becomes important.

It is hard to keep agriculture in balance. It is hard to have enough eggs without having too much fowl. It is hard to keep wool and mutton in balance. It is hard to keep feed and livestock and livestock products in balance. When prices were not regulated it was easy to blame the lack of balance on the "system"—the system which has been evolved over the years. But when governments do the regulating of prices there is not quite as good a chance of passing the buck. The responsibility cannot be shifted.

Prices in Canada have been regulated for a number of years. It is generally conceded that price regulation was effective in holding prices of farm products down during the war. Some scarcities developed, and some still prevail. It is essential that we examine the direction of expansion. It is particularly important to do this in the face of continued contract prices.

From 1939 to 1946

A contrast of the volume of output of the pre-war period with that of the past year is of peculiar interest. From 1939 to 1946 the area of field crops increased by around 4 million acres. Half of this increase was in Saskatchewan. Considerable shift was recorded in the grain crops. The wheat area declined, the area sown to oats remained about the same while the barley area was almost doubled. Some explanation of this may be gathered from the market demand of the time. The outbreak of war found Canada with a huge surplus of unsaleable wheat and expanded breeding of hogs. Expansion of hog feeding during the war years was due to the fact that grain was unsaleable and bacon wanted.

The war dislocated international trade in farm products. This required considerable reorganization of Canadian farming. The change that took place between 1939 and 1946 may be best presented in tabular form.

Contrast 1939 with 1946

	1939	*1946*	*Percent change*
Field Crop Area	59,224,600	63,282,000	+ 7
Livestock June 1st.			
Poultry, Hens and Chickens	59,000,000	85,000,000	+44
Other cattle	4,693,500	6,471,100	+38
Hogs	4,363,800	5,377,300	+23
Sheep	3,365,800	3,378,400	+.04
Milk cows	3,681,000	3,913,900	+ 6
Horses	2,760,600	2,396,850	—13

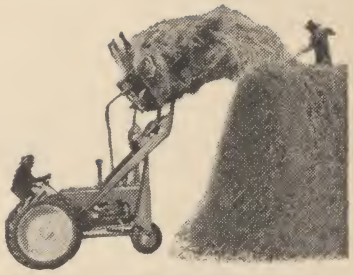
The obvious question from this record is: How was it possible to expand livestock production at such a rate during this period on the basis of a 7 percent increase in area of field crops? The answer is a large amount of unsaleable grain on hand in 1939 and a much better than average yield of grain during the period.

Another feature of the record is that expansion in livestock was not uniform. Apparently some lines of

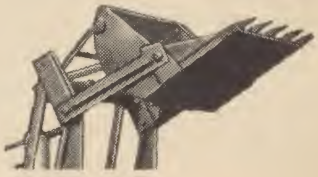
The milk from this herd is competed for by fluid, dried and evaporated milk, cheese and butter.

Takes the "ARM WORK" out of FARM WORK

Massey-Harris Hydra-Lift attached to standard tractor.



Above: Hydra-Lift attached to row-crop tractor.
Below: Special scoop for gravel, sand, etc.



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livestock production proved more profitable than others during that time. On the basis of the necessary supply price it is clear that if increased volume is required in those lines that show the least expansion, the price relationship must be improved.

The greatest expansion was in poultry. The next most marked was in other cattle or beef cattle. Hogs came third. And this position does not present a fair picture as the numbers in 1946 were much below that of 1944. The year 1944 was a record year in hog output due to surplus grain available. As demand for grain expanded hog numbers decreased.

But there was little expansion in milk cows. And the importance of the dairy industry to the diet of the people and to Canadian farming warrants treatment of this line in some detail.

Milk Production

	1939 lbs.	*1946* lbs.	*Percent change*
Canada	16,146,482,000	16,937,028,000	+ 5
P.E.I.	134,561,000	168,289,000	+25
N.S.	446,457,700	447,746,000	—
N.B.	401,633,800	450,952,000	+12
Que.	4,056,157,400	4,747,174,000	+17
Ont.	5,855,497,100	5,713,635,000	— 2
Man.	1,294,988,000	1,219,576,000	— 6
Sask.	1,744,698,100	1,895,582,000	+ 9
Alta.	1,673,179,400	1,657,673,000	— 1
B.C.	529,308,900	636,401,000	+ 8

This breakdown reveals a great lack of uniformity in the rate of expansion in dairy production during this period. Five provinces showed a varying rate of expansion. Three provinces declined slightly, the other province maintained its output. The provincial figures indicate that in those provinces where dairy farming is more or less of a specialty, as in the grass growing sections, expansion took place. On the other hand, where alternative opportunities prevail, as in the cash crop areas, declines were more common.

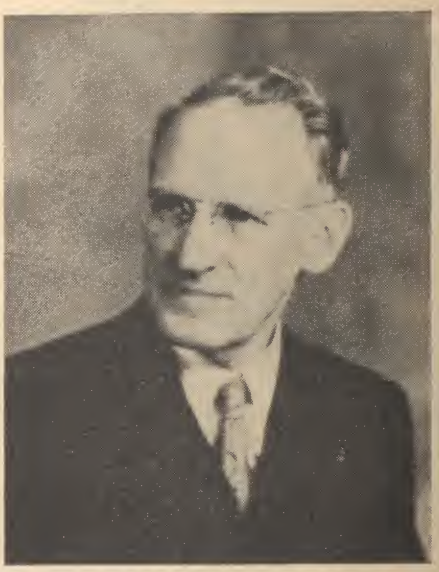
Summary

Interference with international trade during the war compelled a drastic change in Canadian farming. The changes were noticeable in crops grown, but more pronounced in the manner of disposal. Expansion was greater in livestock than in area of field crops. This was made possible by a huge carryover of grain at the outbreak of war and a series of good harvests.

Throughout the period studied, prices of farm products were regulated. With regulated prices the varying factor of importance is the volume of output. From 1939 to 1946 expansion varied tremendously in different farm products. Poultry raising and livestock led in the rate of expansion. Milk production increased at a slower rate.

With price regulation, contract prices or forward price agreements the prospect, it is necessary to study closely the influence of past price regulations on supply.

People Worth Watching



J. Abel Marion

Quebec Farm Leader

With a membership topping 35,000 the Catholic Farmers' Union in Quebec is one of the strongest provincial farm groups in Canada. And it may be no co-incidence that its membership has more than doubled since 1939, when a new president took over. Today's president looks very much the same — just nine years older and nine years wiser. And those years have done no harm to his silver tongue, that has won him wide acclaim for his oratory in both French and English.

J. Abel Marion was born at Colebrook, New Hampshire in 1885, but came to Canada with his parents in 1892. In 1904 he married and settled down at Ste. Edwidge in Compton County, where he started in to farm and raise a large family.

A strong advocate of group action for farmers, Mr. Marion was appointed secretary-manager of the Ste. Edwidge Agricultural Co-operative Society just 35 years ago; and he still holds that post, besides managing the Ste. Edwidge Credit Union since it was founded, and presiding over the local school board for the last 20 years.

Active in the Catholic Farmers' Union since its beginning in 1924, Mr. Marion was elected vice-president in 1930, and became president in 1936. He took an active part in founding the union's life insurance society; and three years ago he promoted the formation of another union society for fire and automobile insurance.

Nor has he neglected educational work. During his term of office the union's weekly farm paper, La Terre de Chez Nous, has swelled its circulation to 80,000.

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Last year "Le Foyer Rural" was launched; it's a family magazine that goes into 15,000 homes each month. And one of Mr. Marion's fondest dreams came true in 1939, in the form of a building to accommodate the headquarters of all the Catholic Farmers' Union activities under one roof.

Under Mr. Marion's guidance, the union hasn't hesitated to branch out in lines that aren't strictly agricultural. Since so many lumbermen are farm boys, the union has felt a moral responsibility for their welfare. It has tried to improve their lot by maintaining a hostel for them in Quebec City since 1939 and a supply store since 1941, and has even set up an employment service for lumbermen.

Strong as his union was, Mr. Marion wanted to see its co-operation extended to wider fields. It's now linked with the Cooperative Federee de Quebec, with Mr. Marion a member of the Federee executive. Since the inception of the Canadian Federation of Agriculture the union has been an affiliate, and Mr. Marion is second vice-president of the C.F.A.

His standing in Canadian agriculture is further attested by the fact that he is a member of the National Advisory Board of the Dominion Department of Agriculture, and was one of the men who represented Canadian farmers at the London organization meeting of the International Federation of Agricultural Producers.

A Small Fair Comes to Life

by J. S. Cram

The tremendous possibilities open to agricultural societies are shown by the development of the fair grounds at Woodstock, Ontario. Many organizations could put some of these ideas to work for local farmers.

MANY small fairs in this country have been closed down because they didn't take in enough to cover the cost of administration and maintenance of equipment. Even if buildings are used only for a few days each year they need to be kept in shape, and repairs are often costly. So fair boards are constantly coming to the point where they have to consider whether to forego future fairs and leave the buildings to the weather and small boys.

But there may be an alternative to this unpopular course. Perhaps the fair may be livened up, so it will draw more support, and pay its own way. Or maybe the board can expand its activities to meet other community needs, and thus secure the necessary revenue.

Many fairs rent their buildings to other organizations for special events. Some organize fall fairs and spring shows and junior fairs and all sorts of similar features.

Most fair grounds live a few days a year.

Others have built arenas that are used in the winter as skating and hockey rinks, supplying healthful recreation while they help to pay the bills.

But one small Canadian fair has decided to go the whole hog, and have its buildings used every day of the year. What's more, it's considerably increased its plant, and has found a ready, paying use for every bit of space. It's the fair at Woodstock, in Central Ontario.

Back in 1939 the Woodstock fair was the usual three-day affair, struggling along with one building for general exhibits, one for horses, and an assortment of sheds and tents for the other livestock.

This year, when the fair opened there was excellent permanent accommodation for all the exhibits, even to the farm machinery. And that's just the beginning of the transformation.

All of this expansion has risen out of a great calamity — the war. In 1940 the army took over the Woodstock fair grounds and the fair was suspended for several years, as were many others in the same circumstances. But when the army released the grounds the Oxford agricultural society was not content to let its fair stay suspended, as happened with so many others. Instead, the society had a plan all ready.

When the army announced that it had no further use for the grounds, and would immediately start to dismantle the buildings, the society came forward with an offer to buy ten of the buildings that would be an asset to the fair equipment. Later they bought three more, and added them to a layout that would be useful the whole year round.

"We believe that an agricultural society should mean more than a big complement of buildings for use two or three days a year," says J. E. Nephew, the secretary-manager. "We're using these buildings to bring in revenue every week, and to tie up as many agricultural organizations as possible in one spot — a year-round agricultural centre."

Carrying out this idea, the 70 x 160 mechanics building, where trucks and gun carriers were once serviced, is used by the farm implement repair department of the Oxford Farmers' Co-operative Produce Company Limited, to keep farmers' machinery in working order.

Another building, formerly a wet canteen, houses the Oxford co-op's battery brooders, and last season it handled 40,000 chicks waiting for delivery to customers. The same concern rents another 30 x 220 barracks for finishing broilers. Last season this enabled it to salvage over 10,000 cockerel chicks that would otherwise have been destroyed because there was no sale for them. And these broilers brought the co-op a tidy profit.

Horses and Fertilizer

A former H-hut houses 100 head of horses for the fair, and is rented for 51 weeks of the year as a fertilizer warehouse, thus serving a real purpose in this farming community. Another has been remodeled to hold 100 cattle, and a third 100 cattle. And a cement hog barn completes the animal housing for the fair. These buildings are rented to commercial concerns and put to good use for the whole year.

The recreation hall that seats 800 people, steam-heated and with good stage facilities, is used twice monthly by the Junior farmers for educational sessions and dances. The Woodstock Little Theatre, the Oxford Federation of Agriculture, livestock breeders' groups and community clubs also make this building their gathering place.

A smaller hall, once the men's canteen, has been rented to the Navy League of Canada, on a 51 week basis, and the sergeants' mess is used to house short courses for young farm people.

Even the old horse building has been put to permanent use, as the home of the Oxford Insemination Service, one of the largest artificial breeding units in Canada.

Of course, not every community has the same opportunity as Woodstock did, to take over buildings that could, with some alterations, be put to such purposes. But a good many that did have the opportunity have not grasped it.

The Woodstock society, if it had not been so anxious to provide real services for the community, might well have boggled at the thought of the expenditures involved in buying and altering the buildings. Instead, it went ahead to find how it could secure revenue from them to pay for an extension of other services. And in doing this it blazed a trail that other organizations might profitably follow, by grasping whatever opportunities they may have.

ACROSS Canada there are twelve distributing centres — at Halifax, St. John, Quebec City, Montreal, Ottawa, Toronto, Winnipeg, Regina, Saskatoon, Edmonton, Calgary and Vancouver — where daily prices are collected by Dominion fruit and vegetable inspectors covering wholesale to retail sales of all domestic and imported fruits and vegetables.

Special sheets are forwarded to the Markets Information Division in Ottawa at the end of each week, showing the product, variety, package, origin, grade and price. These quotations are then available to the entire industry whenever needed.

At these twelve centres, there is also a complete daily record of all freight, express, and in some instances, boat receipts into these markets. This information is forwarded to Ottawa in both weekly and monthly form.

Bonsecours Market in Old Montreal

Keeping Up With Markets

Every day, from Monday to Friday during the domestic potato shipping season, there goes out from Ottawa a Potato Market Report covering the markets of Montreal, Ottawa and Toronto. The information for this report is wired to Ottawa each morning, and includes temperature, weather, truck receipts, freight arrivals — segregated as to province of state of origin—number of cars on track including those in the process of being unloaded, a description of supplies, demand and market, followed by the price ranges for the different varieties, packages, grades and origins.

This report also shows the number of cars of Maritime potatoes passing such points as Cape Tormentine, McAdam, Edmunston and Riviere du Loup, together with an indication as to the destination of such cars. In other words, the report not only shows how many cars of potatoes were on track in Toronto on a specific day, but also gives an idea of how many more are rolling on Toronto from the Maritimes. Finally, the report gives an up-to-the-minute seasonal summary of carlot movement of Maritime potatoes by rail or water, for domestic or export markets, with comparable figures for the previous year. This is all put out on one sheet and is mailed from Ottawa around noon so that growers can receive it in the next day's mail.

In addition to this report, each office now gives to the local daily papers the prices reported each morning on our potato wire to Ottawa. It also supplies the C.B.C. each morning with a fairly complete list of prices covering domestic fruits and vegetables for use on their noon Farm Broadcast, and it checks with them again around four o'clock for any changes to be made in the six o'clock broadcast. As a result the Department of Agriculture report, the newspapers and the C.B.C. broadcast now all have the same potato quotations.

Ottawa also publishes every Thursday throughout the year a Weekly Crop and Market Report. This report, first of all, contains a brief crop news report on the planting, growing, harvesting or marketing conditions of the chief crops in some 29 producing areas across Canada. Ontario, for instance, is divided into about ten local areas such as York, Peel and South Simcoe Counties; Middlesex, Huron and Lambton Counties; and Wellington, Waterloo, Perth and Brant Counties.

Then come the market conditions and prices on practically all domestic fruits and vegetables when in season, together with imported prices, if imported stock is in competition with domestic offerings. These are reported from the 12 centres previously referred to, and appear in the same form as in the Potato Report — arrivals, condition of supplies, demand and market, and actual price ranges for the week according to variety, package, grade and origin. Following this is a table showing the arrivals during the week at the 12 centres for some 20 different fruits and vegetables.

In addition to the foregoing which appear the year round, there is other information that appears from time to time. From December 1 to June 1, storage figures are published as of the first of each month. These figures are published early in the month and show common and cold storage of apples, and total storage of pears, potatoes, onions, beets, carrots, cabbage, parsnips and celery together with figures for the same date the previous year.

To keep people informed of market prices from day to day, so they'll know the value of what they have to sell, the Dominion Government issues reports from our important centres right across the country.

From time to time there also appears such information as the following: Apple export tables, table and seed potato export tables, commodity price summary tables, and production tables.

While all these reports are issued by the Markets Information Division at Ottawa, the work of collecting the data is done almost entirely by fruit and vegetable inspectors of the Dominion Dept. of Agriculture. At some of the larger centres such as Montreal and Toronto, this work is practically a full time job for one inspector. At other centres and at shipping points, the inspectors collect this information in addition to their regular inspection work.

Freight, express and steamship arrivals are obtained early each morning from the companies concerned. Wholesale prices are also obtained each day from a representative number of wholesalers, and the inspector then has to decide from the various prices collected what the actual market price should be. Information on crops, acreage and production is obtained right in your own locality by your local inspector.

Progress in N.B. Potato Work

Progress in improving seed potatoes and methods of production is reported by the New Brunswick Department of Agriculture. This improvement is reflected in large yields of improved quality of both seed and table potatoes. The estimated yield of potatoes in New Brunswick for 1947 is placed at 237 bushels per acre compared with an average of 150 bushels per acre for all Canada. A further indication of improvement is the high quality of seed being produced, and the fact that 95 percent of the acreage entered for inspection passed as certified seed.

All seed improvement programs have been continued including demonstrations and assistance in roguing, maintenance of certified seed areas, early harvesting and Florida testing. More communities and groups of growers are making application for the establishment of certified seed areas, which indicates the determination of growers to co-operate and produce the best possible quality.

N.S. Tries to Sell at Home

Nova Scotia is concentrating more of its attention on the home market, in an attempt to stabilize the apple industry. There are now two modern cold storage plants in operation in the fruit-growing area. One plant, built at Coldbrook last year, has a storage capacity of 150,000 boxes; the second plant at Hillaton, near Canning, was completed recently and has refrigeration space for 80,000 barrels and storage capacity for several thousand more.

Considerable interest was shown last year in the improvement of pastures through fertilization. Fertilized pastures, in the main, stood up much better during the drought period than unfertilized fields and it is expected that the interest in pasture fertilization and improvement will continue.

Raising Dairy Calves

The success of any dairy farm depends on raising enough good calves to keep the herd constantly improving. Here are some very practical suggestions on getting calves off to a good start.

by A. R. Ness

CALF rearing is an important and costly item in the business of producing milk. In order to maintain the four million cows in Canada, some 80,000 to 100,000 heifer calves must be selected and raised annually.

In terms of a 20 cow milking herd that means that four to five calves must be raised each year as replacements. In other words for each herd of twenty cows a farm should have four or five calves, four or five yearlings and four or five two-year-olds. These 12 to 15 young, unproductive animals constitute a big part of the total number of animals to be fed and cared for each day. And the cost of rearing these young animals must be met by the returns from the milking herd.

It isn't always easy to select adequate numbers of high quality replacements, in order to maintain the standard of the herd. In many cases only an 80 percent calf crop is obtained in the first place. Then, too, only half the calves will normally be heifers; and some of the heifer calves should not be kept for breeding because they're from unsatisfactory dams. So it's necessary to get the most out of the calves that are to be kept.

Unfortunately, when calves come into the world they're not too well equipped to withstand the conditions they meet. Many give up the struggle shortly after birth. And the others need all the care, attention to details and skillful handling they can get for their first few days. It's a big change, from being nurtured within the mother to the environment of the stable immediately after birth.

The newborn calf readily succumbs to infection. So sanitation and protection against infections are very important, particularly right after birth. There should be a clean, dry maternity pen—one that's free from drafts—and an after-weaning pen that's not only clean and dry, but well bedded and sunny. That will provide protection against the infections that cause so much digestive disturbance in young calves.

The period from five days to two weeks of age is when calves are subject to attacks of digestive disturbances resulting in diarrhea. Protection during this critical period in the calf's life, can best be provided by proper feeding and clean, dry, well bedded pens.

Proper feeding in the early stages means the use of the first milk produced by the mother. This first milk is called colostrum. Its importance arises from the fact that while the calf is born with little or no Vitamin A in its bloodstream, colostrum is rich in Vitamin A. Furthermore, colostrum has a much higher Vitamin A content the first day after calving that it has the second day, and there's considerably less the third day after the birth of the calf. So the habit of not feeding the calf during the first day of its life is not a sound practice. It may be easier to train the calf to drink when it's hungry—but that won't compensate for the loss of the Vitamin A that it needs, in order to withstand infections.

Colostrum supplies much of the calf's protection against digestive disturbances due to infection. So the newborn calf should either be allowed to nurse, or should be fed its own mother's milk as soon as possible.

People make a big mistake when they throw away this colostrum, or milk produced in the first three days after calving. This milk is not marketable—but it is especially valuable for getting the calf off to a good start. It's richer than ordinary milk in milk solids, protein, and minerals, and contains twice as much Vitamin A and carotene. In addition, it acts as a laxative and helps the digestive tract to start functioning normally.

Early evacuation of the bowels should be watched for. The condition of the fecal matter passed by the calf

These healthy specimens are on their way to a show.

is one of the best indicators of well-being or trouble in the digestive tract.

There's some danger of over-feeding causing digestive upsets, particularly when a fresh cow produces more colostrum than the calf can handle. A safe rule to follow is to feed the calf one pound of milk for each 10 pounds of the calf's weight. In general practice calves are fed only twice each day; but in the case of small or weak calves, added protection can be given by feeding three times per day for the first week, especially when they're not allowed to nurse.

In such cases, the temperature of the milk is very important. Milk should always be fed at the same temperature — 100 degrees Fahrenheit. And if the cow is not being milked at noon it's doubtful if it's wise to advocate feeding the calf at noon, considering the usual lack of facilities to control the temperature of the milk. Feeding milk at the wrong temperature may do more harm than the extra feeding can overcome.

It seems that there's no satisfactory substitute for whole milk in the diet of the young calf. A great deal of experimental work has been done to determine the minimum quantities of whole milk required to raise dairy calves successfully. Some investigators have reared calves successfully using whole milk for only one month, others maintain a six-week feeding period is necessary, while still others recommend a minimum of a two-month whole milk feeding period.

In most of fluid milk districts little skimmilk is available, and the whole milk is replaced by a home-made gruel. Many farmers use this method quite successfully, but others seem unable to get satisfactory results. These people have had more success with calf starters, which include a mixture of good farm grains, fortified with the ingredients known to be found in milk. When the instructions are followed these prepared calf feeds or starters form the basis of a simple and satisfactory method of rearing dairy calves.

Whether the calf should be kept on whole milk for a month, six weeks or two months depends partly on the skill of the feeder in getting the young animal to start eating starter and hay. It may be necessary to teach the calf to eat by placing some of the starter in its mouth several times a day for several days. The starter should be kept before the calf all the time, and water should be offered frequently, unless the calf has free access to it.

Good quality legume hay can be introduced when the calf is about three weeks of age. It may be fed in a rack placed on a partition, and up off the floor.

The bigger the calf, the more starter it will eat. The milk supply for a large calf can be reduced gradually at a younger age, but the milk should not be cut off entirely until the calf is eating at least three pounds per day, and is well started on hay.

Machines for Farm Improvement

Machines have opened up great new possibilities in farming. They make it possible to zoom across the pioneer stage in land development, putting productive land at our disposal many years earlier than would be possible with older methods.

by J. H. Cooper

MACHINES mean a lot in our present day world. They make it possible for us to do several times as much work, and spare us the backaches from which so many of our older farmers suffer. Properly handled, they can accomplish tasks of improvement that would be impossible without them.

Take soil conservation as an example. It makes use of trees, grass and legumes, livestock and poultry to improve the land and increase grain yields. But often it would be impossible to get very far with these improvement programs without suitable machines. There may be ditches to be dug, tiles laid for underdrainage, fields to be stumped and cleared, rocks to be buried, terraces and contours to be laid out. With the right equipment it is possible to accomplish in a few hours some of these jobs that would otherwise take years.

For those who are not yet familiar with the uses of machines in soil conservation work, here are some of the uses to which they are profitably being put.

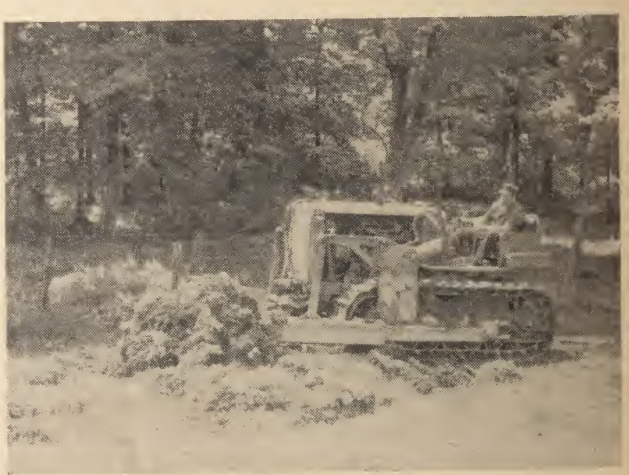
Terracing is being widely used in some hilly regions. Its basic purposes are (1) to intercept the water flowing down a slope, slow it up before it becomes highly eroding, and silt laden and carry it off at a safe velocity to a suitable outlet. (2) to hold the water on the land longer so that the soil may absorb more of it.

A brush cutter makes short work of small trees and undergrowth.

Contour tillage is another method of erosion control. By contour tillage is meant the performance of all field operations on the "contour" or at the same level, so that the implement is always operating on the level. Everyone knows that a cart or any other farm implement is pulled up a hill with much more difficulty than on the level. The laying out of the fields so as to fit the existing rotation of crops does present some difficulty, but once properly planned and set up it is no more difficult than usual tillage practice. In contour tillage, erosion control is brought about by the fact that the rows cut across the path of waterflow and intercept it or decrease its velocity.

Classification of land by slope is necessary in planning a conservation program on a farm. Control measures vary with the slope of the land. The following recommendations are based on the experience in actual soil erosion control work.

For slopes up to 4 or 5 percent, use of contour tillage together with a well balanced crop rotation is sufficient if there is any serious tendency to erosion.



The bulldozer removes rocks and levels fields.

On slopes from 4 or 5 to 12 percent, terracing and contour tillage should be used. Strip cropping should also be included if the tendency toward erosion is severe.

Slopes from 12 to 20 percent are too steep for terracing as usually practiced. They should be strip-cropped with emphasis on alternate strips of dense, vigorous-growing covercrops in the rotation.

Slopes from 20 to 30 percent should be kept in permanent sod, either meadow or well-controlled pasture.

Slopes steeper than 30 percent should be taken out of

agriculture and given over to stimulated development of tree growth and occupation by wild life.

Drainage is another important consideration. One might reasonably ask how drainage of farm land reduces soil losses from erosion. Actually the two go hand in hand. That part of the rainfall that the soil cannot absorb runs over the surface, eroding and carrying away much good soil. If underdrains are placed in the soil, the excess water will pass through the soil and run off through the tile drains in an orderly and controlled manner, which does no damage to the soil or crops.

A point which should be emphasized here is that it is impossible to overdrain a mineral soil. It is also true that the roots of most farm plants will not grow where the soil is saturated and that a well drained soil promotes the growth and vigor of plants by enlarging the feeding ground for the plant roots. As open ditches provide outlets for the underdrains, no underdrainage system will function satisfactorily with poorly constructed and poorly designed open ditches. It is necessary to have proper open ditches, and also a systematic maintenance program so that the ditch will be able to carry off the excess water.

The Farm Mechanics Division of the Quebec Department of Agriculture has had certain heavy machines, such as bulldozers, bullgrubbers, graders, dragline shovels and tile ditching machines available for land improvements on Quebec farms. It is interesting to note a few of the uses to which these machines were put.

The bulldozer is usually powered by a 70 to 80 horsepower track type tractor and is used for levelling mounds or hillocks in a field and also for filling in low or wet places. It is also used for moving and burying boulders and stone fences, and for grading farm roads. $6.00 is the approximate cost of digging a trench, pushing in a pile of stones 25 feet long, 10 feet wide and 5 feet high and then covering with 2 feet of earth.

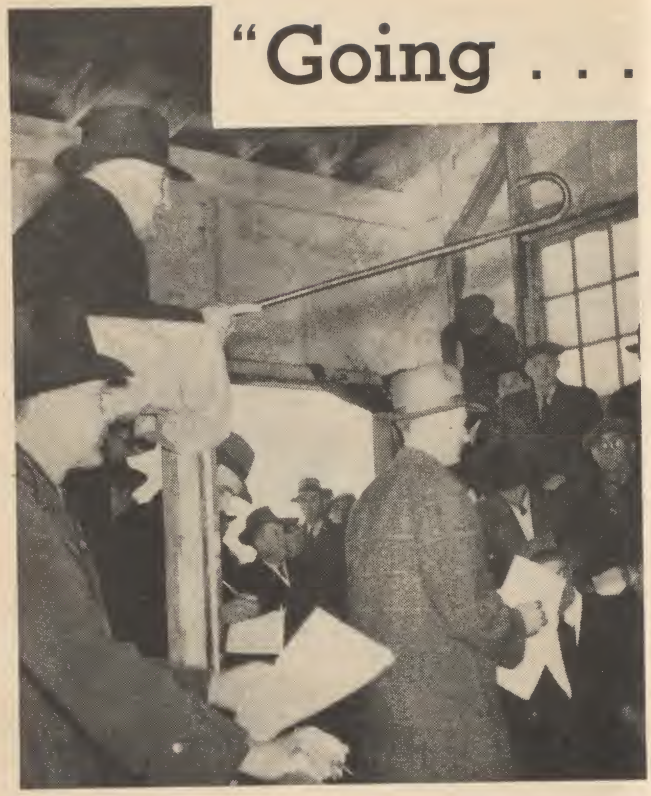
The bullgrubber is usually mounted in a similar way and on the same sized tractor as the bulldozer. Its main use is in pasture breaking, stumping and stone removal. It pulls the stumps and stones leaving the top soil undisturbed. An 80 horsepower tractor will stump from 6 to 7 tenths of an acre per hour at an approximate cost of $8.00 per acre.

P.E.I. Hogs in Great Demand

Prince Edward Island reports that in 1947 over 200 head of Yorkshire breeding stock were sold outside the province, some being shipped as far as the Rockies. In many instances, says the report, Island hogs shipped to Western Canada were prominent in shows and were eagerly sought by U.S. buyers.

The Island is now recognized as the North American breeding ground for Yorkshire foundation stock. Over 100 breeders are helping to meet the demand for high class registered sows and boars.

"Going . . . Going . . . Gone!"



"Sold to the gentleman with the red necktie!" And Auctioneer Ray Demers has disposed of another steer.

Among the most dramatic events of rural Canadian life, the auction sale offers big possibilities for improving livestock returns. It's been used successfully by single farmers and co-operative groups, with commercial animals and high class breeding stock. But it needs to be properly organized, and the man in the pulpit must know his animals, as well as his auctioneering.

by J. S. Cram

"GOING . . . GOING . . ." A thrill passes through the crowd as the auctioneer lifts his stick high in the air. The hush is so intense that it's almost possible to hear the mental processes of the man who made the last bid: "I hope nobody raises it". The only other person who has been left in the running for the last 30 seconds seems to ask: "Should I raise it just once more?" And the owner inwardly asks, as he anxiously scans the bidders' faces: "Isn't anyone going to offer more than that?"

But the auctioneer still has a lot of sales ahead of him. His stick flashes down with an emphatic: "Gone...!" And then, as the crowd starts to breathe again: "Sold to the gentleman with the red necktie."

The owner leads the animal out, trying to reconcile his disappointment that no other bid was forthcoming with his pleasure that he had got so fair a price. The defeated bidder, irked that he has hesitated too long, comforts himself with the thought that the price was too high. The successful bidder fumbingly signs the bill of sale, promising himself that he'll never again be so rash. Then the auctioneer starts in on the next animal, and the crowd settles down to enjoy another episode in the ringside drama.

Auction sales are among the most thrilling events of rural Canadian life. The setting is dramatic in the extreme—the auctioneer in his pulpit, using every inflection of the human voice, and shifting the centre of interest with his emphatic, thrusting stick. First he fixes all eyes on the animal being sold, then on the crowd at large as he seeks an opening, then to the original bidder, and on to competitors as they open up. Stick and jaw wave furiously until all but two of the bidders have been forced out. Then there's a moment's respite before he settles down to pit one of the would-be buyers against the other in the final struggle.

Then comes the climax—that dramatic moment when his stick starts to descend in preparation for the " . . . Gone!" Sometimes it stops in mid-air as another bid is tossed in. The auctioneer seizes the new bid, holding his audience spell-bound as he uses it to prod the other bidders . . . prodding, seizing, prodding, until another climax is worked up.

These sales are marvellous entertainment, but they've a danger of becoming habit-forming. Many people would never miss an auction 20 miles away, if they had to get up from a sick bed to attend. Not that they intend to buy anything — they often go just for the thrill of the conflict — but they seldom leave empty handed. Sometimes they aren't exactly willing buyers; the story of the man who scratched his ear and had a truck knocked down to him could quite easily have been true. Of course, he didn't have to take the truck — but it's surprising what people will do when they're under the influence of auction fever.

This hypnotic effect of auctions—their ability to draw crowds, to bring out the desire to buy—makes them a useful device for farmers to use. There's a good reason why most farmers, when they decide to sell out, hold an auction, rather than selling their assets privately; they know they can get more for them by auction. Besides, it's a big local event, a dramatization of the family's departure.

From the ordinary farm sale, auctions have developed to the point where they hold a big place in the agricultural calendar. Regional fat stock shows have developed

apace, each with its attendant auction. They provide a means of bringing all the buyers together in one place, of providing publicity for the sale and for the firms that buy the top animals. Keen competition has arisen among the big sales—the western events, the Maritime, Sherbrooke and Royal fat stock sales—carrying prices up with it.

Many purebred breeders, too, have found that they could do better by joining with others in their locality to auction off their surplus breeding stock. Many big annual sales of purebred beef cattle, dairy cattle, pigs and sheep have been developed; and they've been good for both buyers and sellers. They've shown the sellers what buyers were willing to pay the highest prices for, and have given them a chance to secure the sort of breeding stock they've needed. They've enabled buyers to make the sort of selection they want, in one place and at one time. And they've encouraged farmers who had nothing but grade stock to buy something better, and have thus launched many a good purebred herd.

Good Place to Learn

One of the most important points is that they've given breeders a yearly standard of comparison. A man bringing his stock in each year can see how it compares with other people's. If he sees that the others are progressing while he's marking time, he's likely to do something about it—something like buying a better herd sire, and perhaps even a female or two. He learns a great deal about type and about blood lines, and the connection between the two. As a result, herds in a locale where regular auctions are held tend to improve much more rapidly than in other places.

That is why breeders' clubs in so many places have their regular auctions. There may be one for each of the breeds, or all the beef breeders may get together to stage a composite sale, and other similar groupings form all down the line. Probably the most satisfactory results for the region as a whole have come out of the composite sales. They've enabled new breeders to compare the breeds, as well as the animals entered, and make their choice of breeds on a much sounder basis than if they were just talked into starting with one that wasn't particularly suitable for their conditions.

But several things are necessary to make an auction a success. In the first place, there must be something worth selling, and someone who's in the market for that sort of animal, and able to pay a reasonable price. Then there must be suitable accommodation, so that everyone will be comfortable and in a congenial mood. There must be good publicity, both to secure adequate entries of suitable animals and to coax potential buyers to attend. The animals must be presented in the best possible condition, and must be kept moving smoothly and quickly.

And the auctioneer must know his business. He must be able to spot interest at the flicker of an eyelash, he must know how to draw out hesitant bidders, he must know when it's no use dwelling longer on an animal. That means he must know his animals, as well as his auctioneering. He has to know type, records and blood lines, so that he recognizes the worth of each animal, and can point out the things that are likely to bring good bids.

Poultry Questions Answered

by W. A. Maw

Q.—How can heald colds be prevented in pullet flocks?

A.—Ordinary head colds in poultry flocks are usually the result of exposure to drafts in houses, damp conditions and direct infection from adult carriers mixed with the young stock. Houses should be thoroughly cleaned each year so that the new flock comes to the house free of any direct contact with previous stock.

Proper ventilation and dry floors, with the aid of deep litter, will assist greatly in providing comfortable conditions. All pullets should also be taught to roost in the proper roosting areas rather than sit on window sills or in sections exposed to possible drafts. A uniform group of strong vigorous birds has a better chance to offset colds or disease in general than flocks lacking proper selection for general health.

Q.—Is early maturity in growth related to market quality in broilers and roasters?

A.—The amount of fat produced during the early stages of growth is not equal to that attained at mature body size. The fast-growing individuals, however, will produce a good finish in body fat, internally as well as externally, thus grading high for market purposes.

Fast rate of growth is related to fast feathering, which is another desirable character in broilers. Such birds mature earlier than slow-growing individuals and usually finish with a greater amount of body fat.

Q.—Is early sexual development an indication of rapid growth in chickens?

A.—Early sexual development in chickens during early growth and especially up to the broiler stage, 10 to 12 weeks of age, is desirable in all strains of stock. The development of a red comb in the male is an indication of sexual maturity and such individuals are generally faster in rate of growth than those not exhibiting red comb development. This factor is most desirable in prospective breeders to be used for producing broiler stock.

Q.—When should fast feathering be accurately identified in chicks?

A.—Fast feathering in chicks is usually checked at ten days of age, when both wing and tail feather development is noted. Back feathering can be checked at four weeks, but better yet at the age for which it is considered important economically, such as the broiler age —10 to 12 weeks. If the character for fast feathering is sex-linked, as is the case in Barred Plymouth Rocks, it can be detected best at 10 days of age. Other breeds differ somewhat and therefore should be checked at the later age.

Q.—Can broodiness in turkeys be reduced through selective breeding?

A.—Turkey eggs are high priced and therefore broodiness in females, which breaks the cycle of egg production, should be reduced or bred out, as has been done in chickens. Turkeys must be trap-nested to get egg and broody records. Experience to date has shown that broodiness is an inherited character, only reduced through selective breeding.

Family performance in egg production and broodiness, as well as other characters, is the best basis for improvement. The selection of individual breeders from families showing desirable progress in such factors as reduced broodiness and increased egg production will result in the greatest improvement.

Q.—Are turkey production prospects good?

A.—There is indication that the poultry meat market should be very good for chicken and turkey stocks next fall. Generally, there will no doubt be less meat produced due to present feed costs. It is quite possible that the demand for poults may exceed the supply and therefore orders for poults should be placed early. Late May and June poults are most satisfactory for farm production, as the birds mature for dressing just prior to the Christmas trade. To be profitable turkey meat stock must be dressed at 26 to 28 weeks of age, the females finishing slightly ahead of the males.

Q.—What are the requirements for a satisfactory range shelter?

A.—The range shelter should be light in construction for easy moving and should be open on all sides, although the sides and one end may be covered with bagging material during the early cool season. The roosting level should be above the plate level on the side walls to avoid having the birds sit in a direct cross-draught of air. Roosts are not necessary where a slatted floor at the plate level is used.

The most satisfactory size is 8 ft. by 10 ft., which will hold 200 growing birds. The framing should be as light weight as possible, yet strong enough to stand numerous moves. 2 x 3 scantlings, on edge, make very satisfactory base and side wall framing, and the rafters and ridge may be $\frac{3}{4}$ inch by 4 inch material. The roof may be of wire mesh covered with 3-ply paper, corrugated sheet metal, wood or fibreboard treated for weather protection The type may be equal-span or shed roof. The equal-span type is most common, using a low side wall about 15 inches. The sides and end are covered with wire mesh. A door in both ends is advisable for easy handling of stock, and the door for the stock should be placed in a corner position on either end.

Q.—What precautions should be taken to avoid fire in brooder houses?

A.—Brooder house fires are usually the result of neglect of proper precautions. Hot coals dropped when making a coal stove or explosion in an oil stove due to overheating are the common causes of fire. First, the floor of the brooder house, in the area about the stove, should be covered with a metal sheet covered with sand. Litter should be cleared back from the stove when making the stove. Be especially careful to avoid hot coals getting under the stove, if they fall to the floor.

Take care in handling the oil brooder to keep anything from getting into the oil supply, which later may block the oil feed line which is controlled by an automatic flow according to the need of the burner to maintain the necessary temperature. It is advisable to strain the oil when pouring into the supply tank.

Operate the stove strictly according to the manufacturer's instructions.

Q.—What is a satisfactory chick litter?

A.—Planer shavings, peat moss, rice hulls, oat hulls, cut straw or clean hay chaff all make satisfactory brooder house litters. Sufficient litter should be used to keep the floor warm and dry. Mixed litters, such as planer shavings and rice hulls, or cut straw and shavings, or peat moss and shavings, are satisfactory for brooder houses. Dry coarse sawdust may also be used in a mixed litter to advantage. Sand is also satisfactory.

Q.—What simple method can be used to keep chicks close to the brooder during the first few days?

A.—A common practice is to use hinged boards, 10 to 12 inches in height, standing on edge to form a circle just outside the edge of the canopy over the stove. A similar fence of wire netting, galvanized iron sheeting or corrugated cardboard may be used. The hinged boards make an excellent arrangement, since they can be lifted and folded flat for standing against a wall out of the way. The boards can be moved out with ease to enlarge the circle.

Q.—How soon can turkey poults be fed fresh green feed?

A.—Turkey poults are fond of green feed, such as clipped grass, clover, onion tops or other vegetable tops. Such green feed may be fed after the poults are a week old. The usual starting mash contains dehydrated alfalfa or cereal grass, but the extra fresh green forage is relished by the poults.

Q.—Should turkeys be tested for pullorum disease?

A.—Turkeys are subject to pullorum disease and therefore should be blood-tested to have the best breeding and rearing results. The testing is done with the same antigen as used with chickens. All breeding stock coming under breeding policies must be tested before being approved for poult production.

DEPARTMENT OF AGRICULTURE

Activities, Plans and Policies of the Quebec Department of Agriculture

Mineral Oils As Weed Killers

by R. D. Cartier
Instructor in Weed Control

Within recent years it has been found that mineral oil can be used as a spray material to kill weeds. Some four or five years ago, alert workers in the United States noticed that plants such as carrots and parsnips could be sprayed with oil without being killed, while the foliage of other plants growing beside them were either badly damaged or killed outright. Evidently there was a certain amount of selectivity in the action of these mineral oils when they came into contact with plant foliage, and investigations were at once started to determine whether or not these oils could be used as weed killers; if a crop of carrots, for example, were sprayed with oil, would the weeds be killed and the carrot plants survive?

Market gardeners in Arizona and California tried to find the answer in 1943. They used Diesel oil, fuel and stove oil and kerosene, but the early results were not all that could be desired. Sometimes the weeds were only partly killed; sometimes the weeds would be completely killed but the crop plants were also affected, as shown by yellowing of their leaves. In other cases, good control was apparently obtained, but when the crop was dug it was found that the roots had absorbed the oil and had a disagreeable smell and taste.

The problem was taken over by scientists at some of the experimental stations, at the University of California and at Cornell, among others. They tested every conceivable kind of oil, from the heaviest to the lightest, investigating their chemical composition as well as their effect on plant life, in an effort to explain why they would kill some plants and not others.

Here all the ground between the rows of carrots has been sprayed with oil. Note the complete destruction of all weeds, with no harm to the crop.

The three rows to the right were sprayed in a narrow strip, leaving the weeds between the rows to be removed by hoeing.

They found that the oils which are manufactured by distillation have a considerable variation in their effect upon plant life. The light oils of the naphtha type act very rapidly when sprayed on plants. Their toxicity is due to the fact that they completely disorganize the tissues of the leaves, but their action is of very short duration.

The heavier oils, such as fuel oils, have a much less violent reaction, imparting a chronic rather than an acute toxicity. Their disorganizing effect on the tissues is slow and persistent; the result of this is to turn the leaves yellow.

The selective action of these oils, then, is apparently due to the rapidity with which they evaporate and to the percentage of aromatic compounds they contain. On the one hand, evaporation should be sufficiently rapid that the carrot roots will not take on an oily taste, but the oil should remain long enough on the plants to kill them completely. It is apparently the amount of aromatic compounds in an oil that determines its selectivity. But just why cultivated plants of the family **Umbelliferae** (to which carrots belong) should not be affected by these selective oils is a question to which there is still no answer, though many investigators are trying to find one.

Motor oils such as gasoline are not recommended as selective spray materials. They evaporate quickly and

often do not remain on the weeds long enough to kill them completely. Furthermore, they are dangerous to use since they are so highly inflammable.

The Selective Oils

The oils which can be classified as selective herbicides belong to the group of oils which are intermediate in volatility. When prepared as herbicides they have certain ideal characteristics. They are very toxic to all weeds, but surprisingly, they do not affect the plants of the **Umbelliferae** family. Therefore, they can be used to good advantage on crops belonging to this family, of which carrots, celery, parsnips, parsley and dill are common examples.

To be effective and sure in its action, an oil to be used as a selective herbicide should have the following characteristics:

Aromatic content	12 to 15%
Boiling range	300° to 400°
Flash point	above 104°
Evaporation rate	high
Residues	trace or less

The oils used by dry cleaning establishments (dry cleaning fluids, Stoddard Solvent type), commonly known as straight run naphta types, possess all the above qualities. However, it would be wiser to use only those oils that have been tested and offered to growers as special weed-killers. They have been registered by the American Government under the name of "carrot oil" or "special herbicide" and are offered under a variety of trade names—Sovasol No. 5, Stanisol, Oleum Spirits, Camsco I-A, Shell Agricultural Weed Killer No. 1, etc.

These oil sprays can be used only on crops that belong to the family Umbelliferae—carrots, parsnips, parsley, celery and dill. Care must be taken, too, when using them on celery and parsley, for these two crops, depending on where they are grown, are sometimes not resistant to the oil. A preliminary trial should always be made on a small section of the plantation to make sure that the crop will not be damaged before the whole field is sprayed. These sprays must not be used on any other crop; if they are, the crop will be ruined.

When to Apply

The best time to apply the sprays is when all the weed seeds have germinated and the weeds are not more than three inches high, but no spray should be applied until the crop plants have passed the cotyledon stage. In other words, wait until the true leaves of the crop plant have appeared. If a second spray is necessary, put it on at least a month before the crop is to be harvested. Nor should spraying be done after carrots have become about the size of an ordinary pencil, otherwise the carrots will not have time to get rid of the smell and taste of oil that builds up for a time in the roots.

These sprays will destroy all annual and biennial weeds with the exception of lousewort, which, though damaged, can resist the treatment. The roots of perennial weeds are not killed and these will come up again another year.

Rates of Application and Equipment

The amount of spray needed per acre depends upon the distance between the rows, and on the number and size of the weeds. If the rows are from 12 to 20 inches apart, all the ground must be sprayed. This will take from 60 to 80 gallons of oil per acre. When rows are spaced farther apart, from 20 to 34 inches, it is cheaper just to spray along the rows, which will take from 25 to 35 gallons per acre. The weeds remaining between the rows can be removed by hoeing or cultivating, with the added advantage of improving the tilth of the soil.

On small areas, up to three acres, a hand sprayer will do the job satisfactorily. A knap-sack type of sprayer is to be recommended, since there are no packings that the oil can damage. On larger areas, where a pump type sprayer must be used, it is well to install synthetic rubber packings, which will not be rotted by the oil. A flat fan spray boom, with nozzle diameters of .046 inches, works very well and is better than a cone type spray.

Spraying in the middle of the day, when the sun is bright and the temperature is above 90°, is not recommended. However, if spraying must be done under these conditions, pressure in the tank should never be above 60 pounds. This is to let sufficient liquid fall on the weeds to kill them before the oil evaporates. Under no circumstances should the pressure be more than 100 pounds. Except for these points, temperature and humidity seem to have little or no effect on the value of the spray treatment. The weeds are killed almost instantly, and no harm is done if it should rain even half an hour after the spray has been put on. Two or three days after the spraying the weeds have disappeared completely.

Pre-emergence sprays

Experiments have also been made to find out whether it is possible to spray a field and destroy the weeds that are growing it in before the crop plants have come up. For best results, the land should be prepared for seeding a few days ahead of planting date, so that the greatest possible number of weed seeds will be encouraged to germinate and start growing before the crop plants, which usually germinate more slowly, come up. Then, when the weeds are well advanced and the crop plants have not yet broken through the soil, an application of an oil spray gets rid of the weeds with no damage to the crop. Preliminary tests have been very promising. The great advantage of this method is that the oil spray need not be selective, since the crop plants are still under ground when the oil is put on. Care must be taken, of course, that the ground is not poisoned to such an extent that the natural microflora of the soil is destroyed. The spray should be applied just before the crop plants emerge.

Many different materials can be used for these pre-emergence sprays, but the lower grade oils will probably be most popular. Diesel and fuel oils work very well in this connection; they are cheap and can be used with no preparation. More will be heard of this method of weed control when more research has been done along this line.

The last type of herbicide which will be mentioned may be called the general contact herbicides. These are used to obtain complete killing of all vegetation, as along roads, in ditches, in parking lots, at airports, along railway lines, etc.—everywhere that plant life is to be destroyed. In general, these sterilize the soil as well as kill the plant life, and this sterilization usually lasts for a considerable length of time. Here again the lower grade mineral oils will prove useful, both on account of the efficient way they do the job, and on account of their relatively low cost.

Potato Protection Guide Ready

The Department of Agriculture publishes a "Guide to the protection of potatoes" which every grower of this crop should have. It is in the form of a calendar which can be hung in any convenient place and gives a complete description of the principal insect pests and diseases which attack potatoes, with recommendations for control. A copy may be had by writing the Information Division, Department of Agriculture, Quebec, P.Q.

The potato crop is one of Quebec's most important, but it not a crop which all farmers grow with equal success. Good farmers harvest from 200 to 275 bushels per acre, but the average for the province is only 118 bushels.

There are probably a number of reasons for this. Some farmers try to grow potatoes on soil that is not suitable. Proper soil type, good soil preparation and care in cultivation and fertilization are all factors that must be taken into account. But probably most important is the seed that is used. Preferably, only certified seed should be planted, for certified seed can double the yield of other kinds, and there is plenty of certified seed available this year. Not only will certified seed increase the yield, but it will give a better crop, for no fields of seed potatoes can be certified unless inspection proves the crop clean and disease-free.

On field inspection, seed potatoes are classed into three grades: Foundation, Foundation A and Certified. No potatoes with any trace of bacterial ring rot are allowed in any of these grades. When buying seed potatoes, make sure that every bag has the official certification tag attached.

High-quality hay or meal is one of the most important ingredients in the ration of sows bred for spring farrowing.

PlanningPoultryProduction

During 1946 and 1947, Canadian poultrymen were in an enviable position. Eggs and meat were selling at attractive prices and there was no overproduction; feed was available at reasonable prices. As a result there was a considerable expansion in poultry production in Canada. In the Province of Quebec it reached a record height with a total annual revenue of 35 million dollars.

The events of the last months of 1947 brought some misgivings. First was the stopping of exports of meat to Great Britain. Then came falling prices on the local market, followed by rising feed costs. Many farmers could see no light in the situation, and got rid of their flocks as fast as they could.

So 1947 ended on a strong note of pessimism and the beginning of the 1948 hatching season was not too happy. But finally the talks between the Canadian and the British Governments resulted in a contract for the sale of 80 million dozen of eggs at prices which restored confidence in the minds of the better producers.

The 80 million dozen mentioned above represents the minimum quantity contracted for. When we add to this the needs of the home market—something like 300 million dozen—it is easy to see that there is a practically unlimited market for eggs in 1948. Last year, Canada exported about 74½ million dozen.

All very well—but what are we going to get for these eggs? Here are some figures on the guaranteed price for export eggs, which will be, in effect, the minimum for local sales. The British contract calls for a price of 47½ cents per dozen for spring eggs, 54½ cents for fall eggs. This is 5 cents and 3½ cents better than in the 1947 contract. Of course, these are not the prices that the farmers will get; the cost of cases, packing, stamping, grading and handling must be taken care of. But taking these costs as a basis, farmers in Eastern Canada should get 38½ cents until the end of August, and 45½ cents from September to January, 1949. These figures are given as a guide only: on the local market, when demand is high and supply short, they may well be higher.

With this in mind, and in face of considerably higher prices for feed, what should the poultryman do? First, he will see that his operations are carried on efficiently. He will get good, early chicks, of good breeding and from healthy flocks. Certified Quebec chicks fill these requirements. He will make sure that he does not overcrowd his stock. He will see to it that sanitary measures are taken to combat disease and parasites. He will make sure that no feed is wasted and will feed balanced rations. And finally, he will make a careful study of his operations to see where he can take measures to reduce his cost of production.

Dairy Specialists Graduate From St. Hyacinthe

The Provincial Dairy School, the oldest institution of its kind in North America, recently graduated a class of six students who have been following a seven-month course there in advanced dairy technology. The students, who were recipients of special grants from the Department of Agriculture, were Messrs. Raynald Giroux, Paul Hebert, Rene Piette, Rene Riel, Leonard Sauvageau and Martial Theroux. They are all Bachelors of Science in Agriculture, graduates of Oka or of Ste. Anne de la Pocatiere.

The course consists of lectures and practical work in dairy chemistry, dairy bacteriology, butter and cheese making, milk production and handling, the manufacturing of milk products (evaporated and condensed milk, ice cream, etc.) and lectures in economics, co-operation, mathematics, and dairy plant construction and lay-out. Particular attention was paid to laboratory work in dairy chemistry and bacteriology.

Course work was supplemented by practical work in some of the larger dairy plants in this province, both in the cities and in the country districts, where the students could see at first hand how milk and its products handled commercially by actually taking part in the work of the dairy. The graduates are capable of working as dairy chemists or dairy bacteriologists, or to undertake the management of a dairy. Most of them will take employment in some dairy plant, and a few will continue with further studies.

The importance of having a corps of trained dairy specialists at work in the province will be realized when one remembers that the dairy industry brings in an annual revenue of over $101,000,000 to Quebec farmers. It is by far Quebec's most important industry, and we are fortunate that specialists to keep it operating at the peak of efficiency can be trained right here at home. The Provincial Dairy School has an international reputation, and each year sees some students enrolled from other countries, obtaining the instruction that will enable them to return home and put into practice what they have learned in Quebec. Already applications for next session have been received from France, South America, Haiti, the West Indies, and one student has recently arrived from Nantes, France, to take a special course in ice cream making.

The teaching staff of the School, which has been considerably increased since the reorganization that took place with the appointment of Dr. Berard as Director, will be engaged on research work of various kinds during the summer, and on preparation for next winter's course work.

During the session which ended on April 3rd, 289 students were enrolled in the regular course, and 245 of these were granted certificates.

Pomologists Name Permanent Secretary

The choice for the important post of permanent secretary of the Quebec Pomological Society is Mr. Theodule Proulx, B.S.A. (Oka). It will be his task to so organize the affairs of the society that all the members, and hence the apple-growing industry in this province in general, will be given all the help possible in the growing and marketing of their crop. This is a broad statement. It implies a constant effort to keep growers in touch with the latest developments with regards varieties, fertilizers, spray materials, cultural and harvesting methods, and so forth. The marketing of the crop, and the relations between grower and consumer, are items that will require careful attention.

Mr. Proulx brings a wealth of experience to his new position. After he graduated from Oka in 1934, he was for three years on the experimental farm at l'Assomption. From there he joined the staff of the Quebec Department of Agriculture as instructor in the district north of Montreal, then became divisional agronome for Terrebonne North and specialist in fruit growing. In the latter post he has had constant contact with fruit growers all over the province, and is familiar with their operations and their problems. He will now devote his whole time to the affairs of the Pomological Society, and his headquarters will be at the Department's offices at 152 Notre Dame St. East in Montreal.

Potato Crop is Big Business

The Bureau of Statistics has just published the figures on the size of Quebec's potato crop in 1947—17,597,000 bushels valued at $22,911,000. Farmers of Quebec grew potatoes on 148,700 acres and the average yield was 118 bushels per acre. Although the yield is low and could be increased greatly, by, among other things, the universal use of certified seed, Quebec's crop was the largest in Canada, where the total production in 1947 was valued at $91,578,000.

Strippings

by Gordon W. Geddes

While it will be a thing of the past by the time this gets into print, sugaring has been very much to the front the past few days. As to whether it is still a thing of the future for this season, I would not dare to try to predict. Before it started at all it seemed to be finished. But some cold spells improved the situation and the last three days of March gave us a big run of sap. Now we are having extensive April showers. Unless it turns cold within a short time the sugar season is over with a small crop. However, it can easily do that and a few days of the right weather could make it an average yield. Yesterday we felt the effects of the wet weather last spring. It delayed getting the wood for boiling sap under cover in proper season and some of the poorer quality reduced our boiling capacity about forty per cent. At least we should have plenty for next season all ready to go under the shed this time but I can't say yet when it will be stored there.

It was rather a surprise to read in the February 'Journal' of the proposed formation of the first artificial insemination center for dairy cattle in Quebec. Around here we have the second generation of Jerseys from such a center and will probably start off the third one some time in 1948. Organized in 1944 as the Eastern Townships Artificial Breeding Center for Jerseys only, the word Jersey was left from the name in case any other breed wished to join us. It started off with a Superior Sire, Sporting Success, and two of his sons. This splendid breeding was made available through the generosity of W. H. Miner at Granby. The first year our own herd had to be content with a grand-daughter of Magic Standard, another Miner Superior Sire, though others did much better. However, the next season brought us six daughters of Sporting Success and three Grand-daughters. We now have a battery of sons of Brampton Jester Standard 2nd which bred about a

thousand cows last year. To encourage owners of grade herds to use our bulls and thus increase our volume, our service fee is only three dollars per cow. Then, if a man has a pure bred animal which he wishes to register, he pays an extra fee of two dollars to the center but only if he wishes to register an animal.

The article 'Crops to Fit Your Farm' in the last issue answered something which had puzzled me. I wondered why the pasture mixtures recommended in Ontario were so different from those advised by the Quebec Seed Board. This article says that orchard grass and meadow Fescue are fine pasture grasses but in general they lack hardiness. Thus they might be satisfactory in parts of Ontario and not in Quebec. Led by glowing reports from Ontario we sowed some meadow fescue several years ago for hay and pasture on a rather wet field. It gave a big crop as we got sixteen loads of hay from four acres. However, it slopes to the east so winter west winds are apt to keep it covered with snow and counteract its lack of hardiness. Anyway the same field is up for reseeding this spring and I think we shall gamble on some fescue in the mixture again. We also have a spot to seed for permanent pasture which is well protected by the woods and we will probably try both that and the orchard grass. Our experiments with brome grass have been very disappointing as we got none at all. Seed is so big that it has to be mixed with the grain and we seem to have covered it too deeply. I notice Mr. Cowan wrote that no really satisfactory way of seeding it had yet been found.

For the present Ivan seems to have found a drover who made a better shrinkage on his hogs. If the new broom continues to sweep clean he is apt to do quite a bit of business here. Shrinkage on Ivan's ran about 25% where it had been up around 28% on local hogs of late. On one occasion I got 25% when I weighed and told the drover what they weighed. Three per cent more shrinkage makes quite a difference on hogs weighing 215 to 220 at the present price of pork.

It is very unusual to hear a woman exclaiming over the beauties of wavy hair on another female. The wavy hair

that appeals to them is usually adorning a member of the opposite sex. However Dot, who has been helping a lot with chores this year in the absence of other help at that time, has been exclaiming all winter about that phenomenon in two of our granddaughters of Sporting Success. This morning she said so much that I investigated and found they were genuine spit curls where the heifer had relieved an itch with her tongue.

If the present butter shortage is real and not created by the speculators, the farmers who let another group of speculators scare them into drying up their cows when feed went up played into the hands of those who want margarine in Canada. Scarcity of butter is a splendid argument and those who dried up their cows contributed to it. If this brings margarine, they spoiled their own income, not just for this winter, but for a long time to come.

New Officer for Junior Club Work

Mr. J. D. Moore, B.S.A. has been appointed Public Relations Officer for the Canadian Council on Boys' and Girls' Club Work, and will work with the general secretary, A. E. MacLaurin in the activities of the Council, which are directed toward the co-ordination of junior farm club work in Canada.

Mr. Moore was born and raised on a large dairy farm in Peterborough County in Ontario, is a graduate of Kemptville Agricultural School and of the O.A.C. at Guelph. At college, he was president of the College Royal, and winner of the McTaggart and Cohoe trophies for championship in live stock and grain judging.

In 1943, while still an undergraduate, he was assistant agricultural representative in York County, Ontario, and in 1945 was appointed agricultural representative for Brant County. In both of these jobs he has been closely associated with successful junior extension programmes.

Pasture Season Best Time To Build Up Cows

A cow in good condition at calving time will yield more milk during the year than when allowed to start her year's work in a low state of flesh. Her butterfat test will also be higher.

There is a real advantage in feeding grain to dry cows, sometimes even on pasture. A dairy cow inheriting the ability for high milk and fat yields, will actually lose weight after freshening, no matter how well she is fed. During the first six weeks or two months of her lactation period she frequently gives off more nutrients in her milk than she obtains in her feed.

The rest or dry period of at least six or eight weeks is a very important stage of the yearly life of the dairy cow. If allowed to milk right up to calving, she will seldom give as much milk in the next lactation; she will also probably have more trouble at calving.

The latter part of lactation, as well as the dry period, should be considered the time when the good dairy cow builds up her reserves of nutrients in preparation for the next year's work. And she can build them up only if she is given the material to do it with.

Abundant, good quality pasture is probably the most complete and protective diet. So the fall freshening cow has an advantage, as she is usually on pasture during the latter part of her lactation, and her dry period. But if she is thin or the pasture is poor, she should be fed grain to which a mineral supplement has been added, in amounts of from two to four or even six pounds per day, depending on her condition and producing ability. It is also a good idea to keep boxes of mineral supplements in the pasture, so that these cows can take as much more as they need.

In this way the dry cow may be built up on pasture. If she is dry during the winter her needs may be met by feeding ample amounts of legume hay, silage, and protein and mineral supplements.

Care of the New Born Foal

The strong, healthy foal is generally up on its feet and ready to nurse within thirty minutes to two hours after birth. Some foals, however, are weak at this stage, and may need some assistance in getting up and some help while nursing.

It is extremely important that the foal get the mare's first milk, or the colostrum. It contains anti-bodies which protect the foal against infection, as well as acting as a natural purgative.

Constipation may cause trouble. If the foal is sluggish and does not nurse it may be because of constipation, and an enema may be necessary.

In the case of scours, on the other hand, it may be that the mare's feed should be cut down and part of the milk taken away by milking her out at intervals. Other causes of scours include unclean surroundings, fretfulness or high temperature in the mare, or cold and dampness. The best remedy is to eliminate these conditions.

An orphan foal should, if at all possible, be shifted to another mare. If this is not feasable, cows' milk can be fed but it should be made up to as near the composition of mares' milk as possible. This can be done by taking a pint of milk, low in butterfat, and adding a tablespoonful of granulated sugar and three tablespoonfuls of lime water. This should be warmed to body temperature and fed in small quantities every hour. As the foal grows the amount can be increased, and the number of feedings reduced. After about three weeks to a month the sugar can be left out and the mixture gradually changed until the foal is getting skim milk alone.

Pasture is the ideal place for a mare and foal, and as soon as the weather permits they should be out every day and eventually all the time.

These are the graduates of 1948, photographed after the Baccalaureate Services on April 18th. They will receive their B.Sc. (Agr.) and B.Sc. (H.Ec.) degree at McGill Convocation on May 26th.

CO-OPERATION AND MARKETING

A page of interest to members of farmer's co-operatives

Co-ops Can Contribute to World Peace

U.S. Co-operator Addresses Canadians in Nation-wide Broadcast

Speaking over the Trans-Canada network of the Canadian Broadcasting Corporation, Herbert E. Evans, Director of Personnel, Ohio Farm Bureau, Columbus, Ohio, told Canadians how co-operatives—"one of the fastest growing forces in our respective national economies"—could contribute to the peace of the world. Evans spoke from Saskatoon where he attended the annual Canadian Co-operative Congress, called by the Co-operative Union of Canada.

Seven strengths, said Evans, made up the binding forces of the co-operative philosophy. They were: more goods to more people at less cost; opposition to monopolistic practices and stimulation of fair business methods; consumer protection through guaranteed quality goods; education of adults to meet critical issues of the day; "returning ownership to the people"; the lessening of social tensions and group conflicts; and the development of a more responsible citizenry.

Evans urged his listeners to "expand these practical results of cooperation at home and abroad . . . (and) bring world co-operatives closer together by an increasing pattern of trade in goods and ideas."

"The world opportunity for peace," he said, "in the final analysis, begins at home. Co-operators in democratic countries must exercise their fullest citizenship rights to the ends of peace. They must do this by the selection of statesmen who will genuinely serve the purposes of world peace and understanding."

"Friendly world trade is a cornerstone of peaceful relations between nations. Too long have cartels, exploitative practices, and currency manipulations led to mistrust and ultimately war. Here co-operatives may make significant contributions".

Already, he stated, co-operative trade between Canada and other countries was under way in petroleum and other products. "Such trade is friendly and mutually beneficial. If more fully developed, it may ultimately set a new pattern for purposeful and non-exploitative international trade."

However, said Evans, "co-operatives must exchange more than goods. They must exchange ideas and common experience. The International Co-operative Alliance, of which The Co-operative Union of Canada is a national member, constitutes a world-wide organization of co-operatives. It must be given opportunity to expand its efforts and activities. Co-operation provides a nucleus for one of the most effective voluntary international organizations. A philosophy which can bring men of so many nations together **must** invariably contribute to world peace."

Co-operative institutions were part of the people's daily lives in nearly forty nations and "represent a way of life which is part of the common experience of millions of world citizens." This, he stated, was "a rich wellspring of common understanding to be tapped."

Evans declared that "international muscle flexing" continued despite a genuine desire for peace among the major powers. The paradox lay in "our talk of peace amid the furious scramble for atomic armaments."

Even "intelligent fear" did not seem to offer a satisfactory common denominator around which nations could rally. There was missing from the scene an idea—"any idea"—great enough to bring all nations and ideologies together. Co-operation, he declared, was the idea the world needed. "Its moral content and its practical economics make it applicable and useful to all nations and people. It implements the essential human freedoms. Its ability to effectively supply human needs has been demonstrated in dozens of countries throughout the world. Peace is implicit in its application to human society."

Co-operatives and the Coming Generation

During the war the cooperatives served wholeheartedly. They were called upon to do many things to help win. These they did to their everlasting credit. They enlarged their plants, put in new and special machinery, sold heavily to the Government, including the armed forces, and they complied with numerous wartime mandates. Some of these cut deeply into the cooperative way of doing business. Ready markets were at every hand. The situation did not require merchandising. In fact, many salesmen spent more time saying, "Sorry, we don't have it" than they did trying to find buyers. Others

exerted themselves largely in trying to protect former customers as much as possible.

This situation has had its effect upon cooperative membership as well as upon the organization itself. In fact, under some circumstances it required a particular kind of loyalty for members to continue to deliver their products to their cooperatives. At times they could get more if they sold outside. It is to the credit of the cooperatives that very few members wandered from the fold.

But several years have passed and the younger generation has not experienced the need for cooperatives. They don't realize that co-op competition has and is forcing many competitors to give much better service than they would otherwise. Therefore it is going to be necessary for cooperatives to pay more attention to the youngsters. The age of the average farmer is greater than at any time in our history. We are due for a high turn-over in membership. Before many years, veterans of the last war for the most part will be the leading farmers.

The cooperative that is going to roll up a successful record, 5, 10, and 20 years from now better start now to teach the younger generation what their organization is all about . . . what it has done, is doing, and what it plans to do in the future.

Mail boxes are necessities, but they need not be ugly. This one is white with red hinges and clasp, with black lettering. The asphalt shingles on the roof were cut down from regular sized ones.

MARKET COMMENTS

Last fall feed grain scarcity was almost as important news as the scarcity of butter now is. These are closely connected as cause and effect when the "lag" is considered.

Feed prices were so high that feeds did not sell in large quantities. Milk production declined and feeds came down in price. From January to April the decline in barley meal was from $66.80—$68.00 per ton to $58.00—$62.20. This was a drop of 11 per cent. Oat chop declined from $66.00—$66.60 per ton in January to $58.25—$60.60 in April, a drop of 10 per cent. From December 1947 to April 1948 the decline in oil meal was from $83.00 per ton to $65.00, a drop of 22 per cent.

In the period the fear of scarcity of feed grains has faded. On March 18, 1948 the number of bushels of oats in store was near 17 million as compared with 13 million on March 20, 1947. Increase in barley in storage was even more pronounced, the figures being in round numbers 8 million bushels in 1947 and 18 million in 1948.

March 1948 recorded a record for many years in rain fall. This would be warmly welcomed in localities where water was scarce and is a good sign of an early spring generally—a good omen for farming prospects.

The United States expects another billion bushel wheat crop. If this materializes it will be the fourth consecutive billion bushel crop and the fifth ever harvested.

Trend of Prices

	April 1947	*March 1948*	*April 1948*
LIVESTOCK	$	$	$
Steers, good, per cwt.	14.46	15.60	15.20
Cows, good, per cwt.	11.25	11.65	11.60
Cows, common, per cwt.	9.28	9.05	8.60
Canners and Cutters, per cwt.	8.35	7.65	6.80
Veal, good and choice, per cwt.	15.73	21.90	16.70
Veal, common, per cwt.	14.27	20.35	13.60
Lambs, good and choice, per cwt.	16.18	16.00	——
Lambs, common, per cwt.	11.95	11.30	11.00
Bacon hogs, dressed, B-1, per cwt.	21.85	28.58	28.35
ANIMAL PRODUCTS			
Butter, per lb.	0.41	0.67	0.67
Cheese, per lb.	0.23	0.36	0.35
Eggs, grade A large, per doz.	0.36½	0.44	0.44½
Chickens, live, 5 lb. plus, per lb.	0.29	0.30	0.32
Chickens, dressed, Milk-Fed A, per lb.	0.35	0.40	0.38
FRUITS AND VEGETABLES			
Apples, B.C. McIntosh	——	3.25	——
Potatoes, Quebec No. 1 per 75 lb. bag	1.60–1.75	2.00–2.15	——
FEED			
Bran, per ton	29.00	50.75–52.75	51.75–52.75
Barley Meal, per ton	——	60.00–65.00	61.00–62.00
Oat Chop, per ton	——	58.25–64.60	62.00–66.60
Oil Meal, per ton	45.25	73.00	65.00

THE WOMEN'S INSTITUTES SECTION

Devoted to the activities of the Quebec Institutes and to matters of interest to them

Preservation of Fruits and Vegetables

Its Origin and Methods

by Marjorie E. Hurley

Centuries ago, the preservation of food was an unknown art. Fresh foods were consumed in abundance during the growing season, but no method was known whereby the surplus could be preserved for use during the non-productive months, because of this the food supply was often scant and the diet wholly inadequate. The earliest steps towards food preservation consisted of storing dried grains and nuts. Later foods were preserved by salting, smoking, and drying, but it was not until the beginning of the nineteenth century that other methods of preservation became known.

Early Methods

Napoleon very aptly commented that an army marches on its stomach. He badly needed some method of preserving food for his soldiers and sailors. He offered 12,000 francs to any Frenchman who could solve this problem. In 1809 Nicholas Appert succeeded in preserving food by cooking and packing in glass bottles with tightly driven corks. The bottles were, of course, breakable and also heavy, so, to a large extent, were useless for what was needed. In 1810 Peter Durand of England obtained a patent for preserving perishable food in containers of glass, pottery and tin. He had heard of Appert and his methods were practically the same. It remained for Louis Pasteur, pioneer in the development of modern bacteriology, to determine the underlying cause of spoilage. His experiments revealed that living micro-organisms (mold, yeast and bacteria) belonging to the lowest order of plant life, were present in the air, drinking water, in the soil and on all objects, and that these micro-organisms, when coming in contact with food caused spoilage, unless rendered inactive by proper sterilization. The big problem, then, was to obtain proper containers. Bottles with cork stoppers, sealed with sealing wax, were first used. Earthenware crocks and jugs were the next step. Cans of tin-plate, sealed with solder, were also an early development. Later glass jars were invented that made home canning easy, economical and popular.

Modern Methods

Home canning has for many years contributed to better living in thousands of Canadian homes. For through the art of home canning the luscious goodness of summer fruits and vegetables is available the year round. These foods help to provide the vitamins and minerals essential to health and vitality. Home canning of surplus foods which are always available during the growing season means saving foods that would otherwise go to waste. Canning may be easily and successfully done. The first rule for success is choosing fruits and vegetables that are in prime condition. 2nd. check over such canning equipment as jars, caps and lids; make sure an ample supply of them is on hand to complete the canning of the food. 3rd. Check the canner or cooker to make sure it is in working order and that the necessary rack for holding the jars of food in the canner is available. 4th. Assemble other canning equipment such as pans, knives, spoons, etc. 5th. Plan to can only the amount of food that can be conveniently handled in one day 6th. Start the day of canning by making sure there is a good supply of boiling water. This is needed for scalding jars, lids and other equipment and for pre-cooking vegetables. 7th. When the work on the food has begun, work rapidly with as little delay as possible. Read directions carefully, follow them accurately. There are no short cuts to successful canning.

Methods that May be Used

The canning equipment to be used will depend on the food to be canned and the method to be followed. Non-acid vegetables, meat, poultry and fish require processing. In the "Open Kettle Method", food is cooked until well done in an open kettle or pan as a means of killing the bacteria and then packed boiling hot into a sterilized jar and sealed immediately. Only fruits, tomatoes, preserves and pickles can be canned by this method. All other foods must be processed in the jar. The open kettle method causes loss of nutritive value of the food and the danger of contamination of the food before the jar is sealed. The "Cold Pack Method" consists of packing the cold or raw product into the jar, then processing. Most products are packed raw, others in order to remove skins are blanched in hot water or steam and then dipped into cold water. The "Hot Pack Method" consists of a short pre-cooking. The boiling hot product is packed into clean jars and processed immediately. This method has been found more satisfactory for vegetables and meats. The "Dry Sugar Method": half fill sealer with fruit, then add sugar in small amounts between remaining layers of fruit. Cover fruit with boiling water. This method gives better results with small fruits than with large. The keeping quality of canned fruit does not depend on

the addition of sugar but rather on sufficient processing and the use of airtight sealers. However, the shape, colour and flavour of some fruits are retained better when some sugar is added. Do not use chemicals or canning compounds.

Processing

This is heating the filled containers to a sufficiently high temperature for a sufficiently long time to prevent undesirable changes in food due to enzymes. Processing may be done in pressure cooker, boiling water bath, steamer or thermostatically controlled oven. Be a clock watcher. Be sure to allow full processing time. Count time from the minute the gauge on the pressure cooker registers the required pressure, the water in the water bath starts to boil vigorously, or the temperature in the oven reaches 275 degrees F. Raspberries or rhubarb may be canned sufficiently by what is known as the raw canning method. Pack the fruit in sealers. Cover with boiling syrup. Adjust top and completely seal. Place on several layers of newspapers in a tub or pail and pour in enough boiling water to cover the sealers 3 inches over the top. Do not pour boiling water directly on the sealers. Place a blanket or rug over the container and leave overnight, or until cool.

Latest bulletins on "Home Canning of Fruits and Vegetables" may be obtained free of charge by sending your name and address with your request to the Dominion Department of Agriculture, Ottawa.

Whether you use any of these methods, do preserve your summer surplus and help defeat the high cost of living and at the same time add variety and nutritious value to your winter meals.

Quiz for New Institutes

The following quiz appeared in the New Brunswick "Home and Country". Perhaps W.I. members may enjoy trying to get the answers, applying it to our province.

1. When and where was the first Institute organized?
2. Who is our Provincial President?
3. What is our motto?
4. Who was the first President? Where did she live?
5. Who is our Provincial Secretary?
6. What constitutes a quorum at a regular, annual or specially called meeting of an Institute?
7. Who calls special meetings? What business is transacted at a special meeting?
8. When does our Institute year close?
9. When may the President vote?
10. What is a majority vote?
11. What motion does not require a seconder?
12. Who is entitled to vote at an Institute meeting?
13. How should Institute funds be kept?
14. What are the duties of the Convenors?
15. When may the chair appoint a committee?
16. Why is it advisable to have an odd number of members on a committee?
17. Name of the five standing committees. (Six in our prov.)
18. Who is convenor of a committee?
19. When there is only one nomination for an office what is the proper procedure?
20. What is the F.W.I.C.?
21. What is the A.C.W.W.?
22. Who is the president of the F.W.I.C.?
23. Who are our representatives on the F.W.I.C.?
24. How long should an Institute meeting be?
25. When should receipts be furnished by an Institute?
26. Should the number of ballots cast for each candidate in an election of officers be announced?
27. When should the Financial Statement for the year be forwarded by the branches? The county?

W.I. Hall At Port Daniel

The Institute at Port Daniel certainly wasted no time in planning for a community hall. At its very first meeting, June 1922, $25 was given to the branch by its new president as a nucleus for a hall. That same summer a bazaar was held which netted them $362.23, to add to the fund. Perhaps we might pause to say one of their best patronized spots was the election booth where ballots at ten cents each were cast to determine the most popular man in the community. (We have come farther since then, now it would be a member of the feminine sex). When the $1000 mark was reached, work began and in the fall of 1926 the Hall was opened. It is used for all community purposes rent free, enough being made for upkeep by such events as election speeches and polling booths, drill hall for Reserve Army Units, and for the past three years it has been rented by the School Board since—we quote, "the Department of Education will not give a grant towards building a new school in Port Daniel Centre to replace the old one destroyed by fire four years ago". What would this community do without the Women's Institute!

The Month With the W.I.

"Two new members were enrolled". "Glad to report an increase in membership." And here is another, Dunham, **nine** new members. Our oldest branch but still young in spirit. Inverness—six! And so it goes in the reports piled before me giving details of annual meetings for all branches. It is inspiring reading and reveals a growing awareness of the value of the Women's Institute in rural life.

Another highlight is the response to the Canadian Appeal for Children. At Morin Heights the school children conducted a canvass with $75 as a result with the Institute raising $43.30. Inverness reports $58.50 raised by this method and South Roxton also sponsored a canvass realizing $22.60 which was augmented by $5 from the treasury. Warden collected $34, L'anse aux Cousins $45 and one of our newer branches, Fitch Bay, $75.60. All other reports mention donations ranging from $5 to $35. So, I hope, branches, you won't mind you are not all mentioned individually. You will realize it would lead to much repetition and we know you have all done your part and done it generously as you all come in somewhere between those two amounts. We shall be looking forward with interest to hearing the grand total in Mrs. Harvey's report.

Argenteuil: Arundel presented their retiring president with a gift in appreciation of her faithful service. Quilts are being made for sale. Brownsburg observed a memorial silence for a member. $5 was donated the National Emergency Fund. Jerusalem-Bethany voted $15 to the Red Cross and $5 to the National Emergency Fund. Lachute in their report only mentions their donation to the Can. Appeal for Children. Lakefield gave $2 to this same fund and $5 to the Red Cross. Frontier sent a wreath to the funeral of the county president, Mrs. McFaul. $5 was voted the National Emergency Fund. Morin Heights sent $5 to the Children's Memorial, (for further report see opening paragraph) Upper Lachute and East End presented a gift to a newly married couple. Pioneer members stood in silence to honour the memory of one of their number. $5 to the Red Cross is mentioned. The county convenor for publicity adds this note to her report, "All branches at their meetings stood in silent memory of our late county president, Mrs. Robert McFaul."

Bonaventure: Shigawake collected for the Can. Appeal for Children. Donations were also given the Red Cross and the National Emergency Fund.

Brome: Austin held a supper and social evening. Sutton sent two of their members to the short course held in that community.

Chat-Huntingdon: Aubrey-Riverfield gave individual donations to the Can. Appeal for Children in addition to a sum from the treasury. Current events in the various departments were given. Dundee sent expressions of sympathy to several members who had suffered bereavement, one being Mrs. Smallman, whose mother-in-law has passed away. Items were read by the various convenors and an exhibition of articles sent home from overseas by a soldier proved of interest. Franklin Centre held a card party to raise funds for overseas parcels. Hemmingford collected diapers to be sent overseas and is including oil and powder. A subscription to "The Countrywoman" is being ordered for the president. Howick is doing sewing for their local hospital. Huntingdon enjoyed luncheon at their High School as a feature of their annual meeting. A dance was sponsored, proceeds for the Boys' Band. Ormstown reports a large attendance at their annual meeting.

Gatineau: Aylmer East endorsed the resolution on compulsory pasteurization of milk. A Blue Cross group has been formed and much sewing and knitting is being done for the Red Cross. Eardley heard the minutes of their organization meeting in 1919. This branch still has six charter members. Kazabazua arranged their school fair programme for this year and collected knitted articles for Save the Children. A quiz on the Band Book was conducted by the convenor of Publicity. Wakefield heard an address by Mr. H. Jomini, Supt. of the local plant of the Aluminum Co. of Canada, who also showed slides of scenes along the Gatineau. Much clothing for European Relief has been collected. Wright gave $10 to the school fair work and completed work for Save the Children. A Bring and Buy sale netted $6.30.

Gaspe: Haldimand is using proceeds of the tea held at their annual for their "Sunshine Fund". L'anse aux Cousins has taken out a membership in the Can. Association of Consumers for one of their group. Sandy Beach discussed the Blue Cross Hospital plan. Wakeham reports a successful annual with a delegate appointed to take the long trip to convention again this summer. York is also planning on sending a delegate. Part of their "talent money" is being used to purchase a kneeling cushion for their local church.

Jacques Cartier: The new branch at Ste. Annes sends in a report of a busy annual meeting with enthusiastic plans for the future.

Montcalm: Rawdon highlights their report with a brief account of their recent two week's course in weaving given by Miss Evelyn Walker. Ten members took the complete course and eight others came in as time permitted. Personal Parcels are being continued with an extra one of soap sent a young family. A card party was successful.

Missisquoi: Cowansville donated $10 to the National Emergency Fund at a well-attended annual meeting. Dunham (see opening paragraph) Fordyce arranged their

year's programmes and gave $5 to the Red Cross. St. Armand also voted $5 to the Red Cross at their annual meeting.

Megantic: Inverness is obtaining the name of an English Institute and is planning to send a box every other month in addition to their monthly "Personal". This branch catered for a dinner for the directors of the local Telephone Co. A prize was given to a member for her work in bringing in new members. Judging by the results mentioned at the first of this feature she deserved it.

Pontiac: Beech Grove held a sale of home cooking and had a Surprise Box. Bristol Busy Bees worked on quilts at their meeting. One member has "adopted" a family in England. Clarendon reports a food sale with the addition of handwork and realized $39. Elmside, several of the convenors gave talks on items of interest connected with their departments. Fort Coulonge sponsored a canvass to raise funds for the Community Hospital. A paper on "Education" was read and canned goods were sent overseas through Aylmer Canners. Shawville featured a film showing at their annual meeting, one of the pictures, "Needy Children in Europe" being of particular interest. Starks Corners discussed school activities. Quyon made plans for the Red Cross campaign and handed in quilt blocks. Wyman observed their 35th anniversary, the oldest branch in the county. Five charter members are still living but only two were able to be present. A resumé of the earlier years of the branch was heard and a birthday cake, complete with 35 candles was served.

Papineau: Lochaber reports a very busy and succesful year. An item of interest from this report was a surprise party given their faithful publicity convenor on the occasion of her 25th wedding anniversary. A chest of flat silver was presented to her together with the good wishes of the members.

Quebec: Valcartier presented their retiring treasurer and her husband with a purse of money prior to their departure for England. $25 was given in prizes for skiing in the annual junior sports connected with their high school. The contestants were afterwards entertained and meals given them by the members.

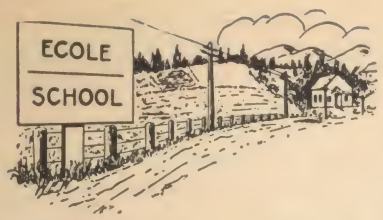
Richmond County W.I. held an executive meeting in which many projects were discussed to be brought before the members at the annual meeting. Some of these included the "Leadership Training" short course at Macdonald College. First Aid class and prizes to be given in the Calf Club. Cleveland voted $10 to the Red Cross and part of the proceeds of a dance was sent to the National Emergency Fund. Dennison's Mills reports much activity on the part of their sunshine committee. And again we hear from the Juniors who gave a party to aid their funds and had a merry contest on guessing number of beans in a bottle. Gore gave a gift to their retiring president and report many activities; card party, quilting and white elephant sale. A donation was voted the Q.W.I. Service Fund. Richmond Hill had a baby shower and a sale of remnants. A donation was given the Red Cross and quilts are being made. Shipton reports a food sale and a Dutch auction of aprons to aid general funds. Spooner Pond, more donations here; $10 to the Red Cross and $5 to the National Emergency Fund. A sale of home made cakes is also noted.

Sherbrooke: Ascot gave $10 to the Red Cross. Appropriate gifts were given to the retiring president and to the Blue Cross secretary treasurer. Brompton Road members were entertained by the losing "Attendance team" Belvidere presented the provincial president, Mrs. Conley, who is a member of this branch, with a life membership. Cherry River held a successful card party. Lennoxville also reports a life membership presented to a valued member, the convenor of their Ways and Means committee. Films on the Royal Wedding and the Royal Family tour of Africa were shown by Mr. R. Taylor of the National Film Board. Milby voted $5 to the Red Cross and veterans in the local hospitals were visited and given small cakes of maple sugar. Orford also gave $5 to the Red Cross. An amusing talk on "Thirty Years with the W.I." was given by one of the members.

Shefford: Granby Hill met for a hot dinner at their annual. A sale of aprons and other articles netted a satisfactory sum and $5 was voted the Red Cross. South Roxton discussed Mrs. Conley's monthly letter and the minutes of the Board meeting. Warden has started a Blue Cross group with 13 members. Used greeting cards were sent to the Children's Memorial and 3 packages of magazines to Wales.

Stanstead: Ayer's Cliff is undertaking a paper drive. Lunch was served at the last film showing and $10 voted the Red Cross. Fitch Bay mended and packed clothing for overseas and served a dinner to raise funds for the school hot soup fund. Hatley has sponsored classes in manual training, sewing and cooking in their school. A gift was presented a member leaving the community. Minton simply states, "a successful annual". North Hatley held a food sale with tea and musicale. Stanstead North presented a layette to one of their members. Tomifobia has ordered a loom and is planning a course in weaving. A box of clothing was packed for Save the Children. Way's Mills reports only the usual routine of the annual.

Vaudreuil: Cavagnal, this branch has outgrown any home of their members and is meeting in future in the United Church S.S. Hall, which they have rented on a yearly basis. The report adds "now we can hope for an even larger membership". A travelling basket has been circulating for many months and $5 was taken from it for the Q.W.I. Service Fund. $10 was also voted the Red Cross. Home-made articles were sold, the money to be used for postage on their "Parcels".



LIVING AND LEARNING

Farm Day

by Floyd F. Griesbach

Plans have been made for the Annual Meeting of Quebec Farm Forums and Macdonald College Farm Day, June 19. A busload of Ontario farmers who will be touring Quebec at that time have arranged to attend the meeting. Many counties in Quebec are also making plans for a busload to attend.

The programme will open at 10:30 with Farm Forum reports and discussion. At 12:15 the Dean of Agriculture, Dr. W. H. Brittain, will welcome the visitors. Dinner will be available for 300 in the dining hall while others will have picnic lunch on the campus.

A feature of the day will be the exhibit, in the Main building, of "New Developments in Agriculture".

Those attending Farm Day will have a choice of four tours for the afternoon:

The Livestock Tour will consist of a visit to the livestock arena where a demonstration on selecting dairy cattle will be given. Macdonald families will be used for illustration purposes. Following the demonstration the group will have an opportunity of touring the piggery where an experiment on finishing hogs for market will be nearing completion.

The **Horticulture and Poultry Tour** will provide an exhibit of a model Farm Garden on display in Room 2 at the College. Those who go on the tour will also see the actual garden in the field along with a model town garden. Demonstrations on storing the produce by freezing and canning will be followed by a special tour to any part of the gardens or orchards which may be of interest to those present. A demonstration of factors in grading of dressed poultry to stress price differential for the poultry product; preparation of the half-turkey; features of the farm egg cooling cabinet.

Ladino clover has some very valuable features as a pasture legume. On the **Forage Crops Tour,** plots containing this legume and others in mixtures with such grasses as Brome, Orchard and Meadow Fescue will be seen. Their place in the hay and pasture production will be discussed by a member of the Agronomy Department. In preserving part of the hay crop as grass silage, the forage crop harvester has appeared on the market. Its merits and those of the field hay baler will be demonstrated and discussed by the Agriculture Engineering Department.

The tour of the **Household Science Department** will acquaint you with many suggestions for a more interesting home.

Tea will be served to the ladies during the afternoon.

Our Rural Committees

by Elizabeth Loosley

The Rev. Mr. White is a country minister. He grew up on the farm; spent a few years in the city, at College; and then came back to the district in which he was born; the country which he knows as well as he knows himself; and to the people who are a part of it.

Perhaps it was for this very reason that Mr. White was asked to prepare a report on problems of the rural church for an important Conference meeting.

He got out his typewriter one fine evening in early spring. Sitting at his old desk in the study, he could look out across the lawn, where the trees were showing their first faint green buds, to the little white frame church, with its sturdy steeple. Inside the low stone wall, he could see the worn grey stones, marking the graves of the men and women who had cut this settlement out of the forest heart.

Mr. White said to himself that he knew the history of his community. And the secret griefs and joys of almost every person living in it. Yet he was having a great deal of difficulty in universalizing his own experience to apply to all rural communities throughout the province. He would have to do some reading on the subject. But he was a busy man. How could he find out, with a minimum of trouble, what had been written recently on the rural community?

This is the kind of question confronting country teachers and doctors, as well as ministers. The growing concern among these people for more and better information about the environment in which they work, is an encouraging sign that new life is stirring throughout the country districts. And, fortunately, there is a growing

body of literature dealing with the problems of rural living.

One recent book is a welcome addition in this field of "rural sociology". "Our Rural Communities; a Guide-book to Published Materials on Rural Problems", by Laverne Burchfield, is American; but much of the material is sufficiently broad in scope to be applicable to Canada as well. There are chapters on the following areas of rural life: Schools; Agricultural Extension Service; Library Service; The Church; Medical Care and Health Services; Welfare Services; Housing; Recreation; Children and Youth; Cooperatives and General Farm Organizations; Local Government; Community Organization; Land Use; and General Publications on Rural Affairs.

Each chapter commences with a short outline of the area under discussion, based on the outstanding texts in this field. The outline is followed by a detailed bibliography of additional source materials. This arrangement makes the book doubly easy to use.

From the number of requests for information of this kind which we have received already, we know that "Our Rural Communities" will meet a genuine need. The book may be borrowed from the Information Centre, Adult Education Service, Macdonald College; or it may be purchased from the Public Administration Service, 1313 East 60th Street, Chicago 37, Illinois, U.S.A. (Price $2.50).

Forum Figures Tell The Story

Quebec Farm Forum reports show another successful season. 134 different groups reported during the last series of broadcasts. 37 forums met every night or 20 times and some of these held an extra meeting in October to get organized. 21 groups met 19 times and 13 had 18 meetings. Five forums had 17 meetings, five had 16 and fourteen met 15 times. Only 13 groups met less than 10 times.

Many groups have plans to meet once or twice a month during the summer.

On an average night, 114 groups reported 1717 people with an average of 14.9 present in each group. The first week of January was the best with 124 forums reporting 1960 people at their discussions. Due to maple syrup operations, only 99 groups reported 1328 present for the broadcast of March 15. At the end of the season 116 forums answered the questionnaire to assist with plans for next year's programs. Every county or district has held a Spring Rally or has plans under way. Some of the subjects discussed at these Rallies are "Soil Conservation and Plant Improvement"; "Co-operative Health Services", and "Farm Efficiency and Farm Income".

What Farm Forums Are Asking

Creameries Inspectors?

Flanders, Compton Co:—"We need help from the government in appointing or providing an inspector for creameries and milk processors, to keep them from lowering our test below its actual test. This is creating more dissatisfaction than any other one thing. It is invariably the case, when the price goes up, the test goes down." *Mr. A. E. French, Sec.*

ANS.

"I am glad to inform you that there are in the province 46 inspectors of dairy establishments and products who, at random and at least once a month verify milk and cream analysis made by each plant in operation. When the test is found to have been lowered fraudulously or by error the producers are advised.

"I am sending a copy of this letter to your district inspector, Mr. Lionel Dube, residing at Sherbrooke, asking him to pay you a visit as soon as possible and give you more information about the work done to protect farmers." *Roland Camirand, Inspector General of Dairy Products and Establishments.*

Re-forestation

Starks Corners, Pontiac Co:—"We feel that something could be done in regard to re-forestation and think the Government in Quebec should enforce laws to protect the forests before they are all cut out. Some sections here have been cut out and the land is useless even for grazing." *Mrs. Cecil Sly. Sec.*

ANS:

"Cutting on Crown forests leased to lumber and pulp and paper companies are regulated by the Forest Service. Clearcutting is a reproduction method which generally assures a prompt and satisfactory establishment of the new stand.

"Besides Crown forests, there are privately-owned woodlands, covering 26,600 square miles. Woodland owners are not, as yet, obliged to manage their forest properties on a sustained-yield basis.

"Conventionally, woodland owners are classified as small, medium and large-scale owners. One must own 300 acres of woodland to be classified as a medium-scale owner, and 2,000 acres as a large-scale one.

"There are about 70 large-scale owners in the Province. Most of them are Crown limit-holders engaged either in the pulp and paper or the lumber industry, or in both of them. They own, altogether, some 10,000 sq. miles of woodlands. Should the Minister of Lands and Forests deem it necessary, they are charged with the prevention and suppression of forest fires within their woodlands.

"The small and medium-scale owners number 200,000. They are grouped in two lots—the farmers (125,000) and the non-farmers (75,000).

"Since 1942, an organism of the Lands and Forests Department—the Forestry Extension Bureau (Bureau de Renseignements forestiers, in French) — promotes the proper management of those small—and medium—scale woodlands. Its Forest Engineers provide the owner with the technical advice he might need to improve his woodlot or sugar bush, get the best possible return from his forest products, and perform successfully his plantings.

"Mr. Romeo Chamberland, P.O. Box 26 Hull, is the extension forester in charge of the Hull Division, which covers Pontiac, Papineau and Lower Gatineau. This Forest Engineer has already led many farmers and non-farmers of his district to consider their woodlands as a permanent asset." *R. Delisle, F.E., Director, Forestry Extension Bureau.*

Soil Testing

Upper Tullochgorum, Chateauguay Co: "We wonder if there would be any way of testing our soil to find out if there was a vitamin deficiency. When experiments show that certain cereals, etc. are vitamin deficient we would naturally conclude that the soil from which they were produced lacked certain vitamins."

Mr. Huntley Greig, Sec.

ANS:

"In answering this enquiry it may be said, first, that the evidence is that crop plants are able to make their own vitamins, it is not necessary for them to obtain these from the soil. Experiments so planned as to provide no vitamins to the growing plants have proved this to be a fact. Certain vitamins may be present in soils, but it is very difficult to prove that crops get any benefit from their presence and, as pointed out above, the crops are quite capable of making their own.

"In the second place, it may be said that certain mineral deficiencies in the soil may influence the capacity of a crop to produce or to store vitamins. By and large, however, it is probably that such effects will not be serious unless the deficiency is great enough to affect yield. Healthy plants will contain a normal vitamin content. It must be borne in mind, of course, that the amount and kind of vitamins in one crop may be different from the amount and kind of vitamins in another crop.

"In summary, it is not necessary to have soils tested for vitamin content, plants can make their own; keep them healthy and they will do so."

W. A. DeLong, Associate Professor Department of Chemistry.

Willow Brook, Brome Co:—"Someone brought up about commercial fertilizers being a harm to the soil rather than the good it did to the crop that was raised by it. It has been reported by two or three different sources that fertilizers are eating up or burning the roots or humus of the soil; some farmers say that after a number of years use of fertilizers, that the land has not improved. If this is so we had better change our system of fertilizing the land, such as ploughing a field of clover under or some other, such as buckwheat. In that case we would be better to buy more straw and mix with barnyard manure." *Mr. Wilfred Moffat, Sec.*

ANS:

"In answering this enquiry I may say first that commercial fertilizer in the amounts ordinarily used, and when broadcast or applied so as to avoid direct contact with plant roots, has no harmful effect upon the latter. Neither is it true that fertilizers "Burn" the humus of the soil. It is, however, a fact that if commercial fertilizers only are used and no manure is applied and no green crop is plowed under, the organic matter of the soil is likely to decrease. Especially is this the case where a succession of cultivated crops are grown on the same area under such a system of management. In fact, no matter whether one uses commercial fertilizer or not, continuous cultivation or a rapid succession of cultivated crops, will bring about a decrease in humus.

The suggestion that fertilizer be discarded and organic matter maintained by plowing under clover, would, I am quite certain, be unsatisfactory on most of the soils of Brome County. Without fertilizer it is doubtful that a satisfactory stand of clover could be obtained. Further, in these days of high-cost protein feeds it is uneconomical to plow under clover. Also, although barnyard manure is beneficial and necessary, it is an unbalanced plant food, being too high in nitrogen and too low in phosphorus and often in potash as well, especially when the liquid manure is not saved. Further the mixing of large quantities of straw with manure is not advisable unless the straw and the manure are composted before application.

"In summary, the best answer to the organic matter problems undoubtedly is to return as much manure as is available to the land, to supplement this with commercial fertilizer and to follow a good programme of crop rotation. It is, of course, impossible to outline a system of farm management in a letter. There is, I believe, no doubt whatever that the judicious use of commercial fertilizer is both advisable and profitable on by far the greater part of the cultivated land of this province. *W. A. Delong, Associate Professor Chemistry Department.*

THE COLLEGE PAGE

Mac Plans for the Summer

Diploma Course students went home after a successful year of studies on April 3rd. Degree Course students in Agriculture and Household Science finished their examinations on April 30th. School for Teachers and Homemaker students will finish their courses on June 6th, and when they have left, all our regular courses will be over for another session.

But that does not mean that the College will be a deserted place. Not by any means. Summer is the time when all the experimental work that must be done out of doors is crowded into a few short months. The staff of the departments of Agronomy, Animal Husbandry, Horticulture, are busy in the fields and orchards day after day. And in the summer come the special courses and the conventions that Macdonald College is always glad to welcome.

From May 10th to May 14th we have had a short course for members of the Quebec Women's Institutes. This has been mentioned in the last few issues of the Journal. From May 31st to June 9th we will provide living quarters and classroom space for a special course put on by the McGill School of Architecture for 50 students. On June 19th comes Farm Day which is also the day of the Annual Meeting of Quebec Farm Forums, at which some 300 people will likely be present. From June 21st to June 29th the Quebec Women's Institutes will be holding their annual convention.

On July 5th begin the regular summer schools for teachers, and on July 15th the P.A.P.T. Workshop will bring 30 men and women teachers for a two-week session of discussions and studies. On August 2nd the clergymen arrive for their annual school, and will be here until August 13th.

There will then be a brief pause, while the exhausted residence and dining room staffs try to catch their breath before the regular courses begin, when the School for Teachers register on September 7th. Yes, Macdonald is a busy place, be it summer or winter.

University of Montreal Honours Macdonald Professor

Professor John G. Coulson, popular Chairman of the Department of Plant Pathology at Macdonald College, received the degree of Docteur ès Sciences, **honoris causa,** from the University of Montreal at a special convocation held at the University this month. Professor Coulson's many friends among the graduates, the staff of the College and the scientific world in general, will welcome this tangible testimonial to his ability as a practical plant pathologist, and an inspiring teacher.

Professor Coulson has a long record of service to the agricultural profession, for he is not content with spending his time only in teaching during the academic session. He co-operates actively with other College Departments, and with the Provincial Department of Agriculture, bringing his knowledge and experience of plant diseases to bear on a wide variety of problems. He is a charter member and a past president of the Canadian Phytopathological Society, past president of the Quebec Society for the Protection of Plants, has been chairman of the Quebec Plant Protection Board, and has directed tomato and potato disease surveys for the Quebec Department of Agriculture.

Miss Margaret Trapp, a member of the staff of the School of Household Science, with responsibility for the Homemaker Course, is leaving on June 1st for Sweden, where she has accepted a summer position in the Marston Hill Summer School at Mullsjo. This is a private school to which come Scandinavian girls who want to learn English, which they do by taking courses, in English, in a variety of subjects. Miss Trapp, who is a recent graduate of Macdonald College, will teach cooking, food use and nutrition. The school will open on July 1st, and Miss Trapp will be back at Mac in time for the opening of the Homemaker course in September.

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